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## IZAZOVI TRŽIŠTA OSIGURANJA U SRBIJI NA PUTU KA SOLVENTNOSTI II

ORIGINALNI NAUČNI RAD

### Apstrakt

Društva za osiguranje/reosiguranje, kao finansijske institucije koje se profesionalno bave preuzimanjem rizika i formiranjem zajednica rizika, nisu izložena samo uticaju rizika osiguranja. Iskustvo tržišta osiguranja evropskih zemalja pokazalo je da je niz problema sa solventnošću kod društava za osiguranje uzrokovan rizicima koji nisu direktno povezani s rizicima osiguranja, već svoj koren imaju na tržištu i u vezi su sa problemima druge ugovorne strane, ili se čak tiču internih propusta, loše organizovanih procesa, grešaka zaposlenih i sl. Spoznaja da na solventnost, kao pokazatelj za koji je zainteresovana većina stejkholdera, utiče širok dijapazon rizika bila je pokretač transfera regulative sa okvira Solventnost I na Solventnost II. U fokusu tog procesa bilo je unapređenje stepena zaštite interesa korisnika usluge osiguranja u najširem smislu. U radu su predstavljene osnovne prednosti novog regulatornog okvira za obračun solventnosti iz aspekta sveobuhvatnije procene i individualizacije rizika. Rizični profil entiteta više nije opredeljen isključivo volumenom premije osiguranja, likvidiranih šteta i tehničkih rezervi, već je pod uticajem niza faktora: segmentacije poslovanja, trajanja ugovora, dinamike dospeća premije osiguranja, suma osiguranja, strukture ulaganja, nivoa kreditnog kvaliteta poverilaca, internih statistika i iskustava, korelacija rizika i dr. Predstavljene su efekti primene Direktive Solventnost II na tržištu EU nakon osam godina od njenog stupanja na snagu, sa ispoljenim nedostacima i očekivanim pravcima daljeg razvoja odredaba zakonskog okvira. Rad sadrži komparativnu i „gep“ analizu regulatornih okvira Republike Srbije u odnosu na tržište EU. Istaknuta su ključna područja koja će na osnovu evropskog

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Rad je primljen: 15.4. 2024.  
Rad je prihvaćen: 16.5. 2024.

iskustva usvajanja tekovina Direktive, odnosno na osnovu specifičnosti tržišta osiguranja Republike Srbije, predstavljati glavne izazove prilikom harmonizacije i prelaska na nov okvir za obračun potrebnog solventnog kapitala i racija solventnosti. Domaće tržište osiguranja treba da već široki vremenski okvir koji je na raspolaganju za usvajanje tekovina Direktive Solventnost II efikasno iskoristi da sistemske izazove rešava kroz postepeno prilagođavanje zakonskih rešenja, pripreme kroz kvantitativne studije uticaja, optimizaciju poslovanja, učenje na iskustvu zemalja regiona koje su već prošle kroz predmetni proces, odnosno putem razvoja i transfera znanja.

**Ključne reči:** solventnost, moduli rizika, SCR, MCR, tehničke rezerve, QIS studije.

## I. Uvodna razmatranja i osnovni principi okvira Solventnost II

Direktiva Solventnost II predstavlja zakonodavni standard EU za sveobuhvatnu procenu rizičnog profila društava za osiguranje/reosiguranje i potreba za solventnošću.<sup>2</sup> Direktivom Solventnost II zamenjuje se ukupno 14 direktiva okvira Solventnosti I, sa ciljem da se pruži bolja zaštita svim korisnicima usluge osiguranja u širem smislu, odnosno da se obezbedi jasnija slika solventnosti svim zainteresovanim licima za poslovanje društva za osiguranje/reosiguranje.<sup>3</sup> To se postiže sveobuhvatnim merenjem rizika, koji podrazumeva širi pristup identifikacije i ocene rizika i prelazak sa dominantnog posmatranja rizika osiguranja, kao opredeljenja direktiva iz delokruga okvira Solventnosti I, na pristup koji, pored rizika osiguranja, u sebi obuhvata rizik neživotnog, rizik životnog i rizik zdravstvenog osiguranja, u obzir uzima i rizik neizmirenja obaveza druge ugovorne strane, tržišni rizik, operativni rizik i rizik nematerijalne imovine, odnosno njihovu korelaciju.<sup>4</sup> Takvo opredeljenje, zasnovano na *principu procene individualnog rizičnog profila društva za osiguranje/reosiguranje*, omogućeno je i zasnovano na dubokoj vertikalnoj segmentaciji pomenutih modula rizika na sitnije podmodule rizika, prilikom čega na ukupan riziko profil, pored već standardne ukupne premije i tehničkih rezervi, koje posmatra i raniji regulatorni okvir, utiču: segmentacija poslovanja, trajanje ugovora, dinamika dospeća premije osiguranja, sume osiguranja, struktura ulaganja, nivo kreditnog kvaliteta poverilaca, uticaj stres testova na rezultat, interne statistike i iskustvene realizacije parametara od značaja za obračun, parametrizovani koeficijenti obračuna,

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<sup>2</sup> Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), OJ L 335, str. 1–155.

<sup>3</sup> Direktiva je usvojena 2009. godine, ali je puna primena na tržištu EU usledila tek počev od 1. 1. 2016. godine, što govori o njenoj kompleksnosti, intenzitetu regulatornog iskoraka i obimu potrebnog prilagođavanja učesnika na tržištu osiguranja.

<sup>4</sup> Detaljnije o Solventnosti I: Vladimir Čolović, *Osiguravajuća društva, Zakonodavstvo Srbije, pravo EU, uporedno pravo*, Institut za uporedno pravo, Beograd, 2010, str. 201–202.

korelacija rizika i drugi činioci.<sup>5</sup> Sve to rezultira time da društva za osiguranje/reosiguranje koja imaju isti ili sličan nivo premije osiguranja i tehničkih rezervi mogu beležiti materijalno značajne razlike u potrebnom i dostignutom nivou solventnosti. Pored segmentacije i individualizacije procene rizika, zadatak koji je postavljen pred novi okvir Solventnosti II jeste i adekvatnija alokacija kapitala, odnosno unapređenje nadzora u pravcu supervizije grupe.

Zadaci koji su postavljeni pred novi regulatorni okvir ispunjavaju se kroz tri stuba na kojima Solventnost II počiva:<sup>6</sup>

- 1) kvantitativni zahtevi;
- 2) kvalitativni zahtevi;
- 3) transparentnost.

Kvantitativni zahtevi podrazumevaju tržišno konzistentnu procenu sredstava i obaveza.<sup>7</sup> To podrazumeva da se imovina vrednuje u iznosu po kome bi mogla da se razmeni između obaveštenih zainteresovanih strana u transakciji po tržišnim uslovima, odnosno da se obaveze vrednuju u iznosu po kome bi mogle da se prenesu ili izmire između obaveštenih strana u transakciji po tržišnim uslovima.<sup>8</sup> Kao osnovni metod vrednovanja koji treba da obezbedi tržišno konzistentnu procenu imovine i obaveza, društvo za osiguranje/reosiguranje treba da upotrebi kotirane tržišne cene za istu imovinu i obaveze, odnosno, ukoliko one ne postoje, tada se alternativno mogu koristiti tržišne cene za sličnu imovinu i obaveze. U okviru kvantitativnog stuba uspostavljaju se dva nivoa kapitalnih zahteva, SCR (*Solvency capital requirement*) i MCR (*Minimum capital requirement*).<sup>9</sup> SCR ili potreban kapital za solventnost obezbeđuje da društvo za osiguranje/reosiguranje, uzimajući u obzir sve rizike, može podneti nepovoljne događaje koji se javljaju jednom u 200 godina, tj. odgovara intervalu poverenja od 99,5% na period od jedne godine. Potreban kapital za solventnost može se obračunati primenom standardnog modela ili alternativno, primenom internog modela koji razvija entitet čije odobrenje za primenu daje regulator u sklopu složene procedure validacije tog modela. Minimalni kapitalni zahtev obezbeđuje interval poverenja od 85% na vremenski horizont od jedne godine. U cilju obračuna raspoloživog kapitala, okvir Solventnost II uvodi principe obračuna aktive, odnosno obaveza, tehničkih rezervi, pri čemu se tehničke rezerve sastoje od najbolje procene i dodatka za sigurnost. To rezultira drugačijom strukturom bilansa,

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<sup>5</sup> Mirjana Ilić, *Uticaj primene Direktive Evropske unije Solventnost II na sektor osiguranja u Srbiji*, doktorska disertacija, Ekonomski fakultet Univerziteta u Nišu, Niš, 2014, str. 25–26.

<sup>6</sup> Nataša Petrović Tomić, *Pravo osiguranja, Sistem*, Knjiga I, *Službeni glasnik*, Beograd, 2019, str. 278–280.

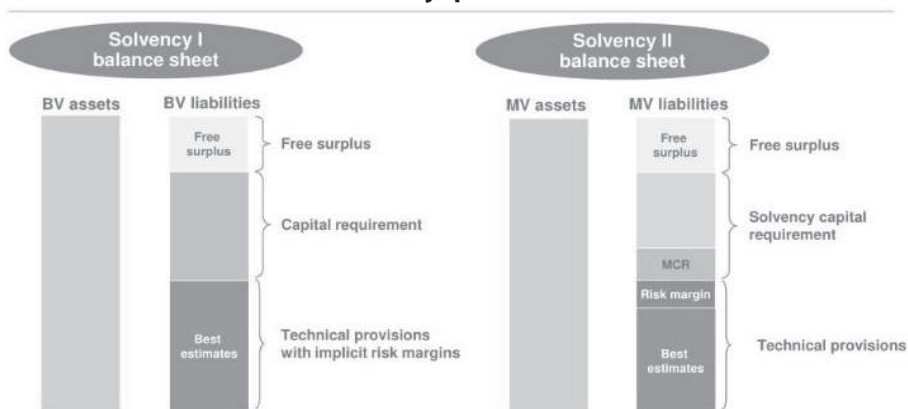
<sup>7</sup> R. A. Rae, A. Barrett, D. Brooks, M. A. Chotai, J. Pelkiewicz, C. Wang, C., „A review of Solvency II: Has it met its objectives?“, 2017, str. 11–15.

<sup>8</sup> Narodna banka Srbije, „Okvir za sprovođenje treće kvantitativne studije uticaja zahteva Solventnosti 2 na Sektor osiguranja u Republici Srbiji“, 2023, str. 7.

<sup>9</sup> Lidija Jauković, Vladimir Kaščeljan, „Nova regulativa solventnosti osiguravajućih kompanija u EU – Projekta Solvenost II“, *Montenegrin Journal of Economics*, No. 5/2007, str. 80.

ali isključivo za potrebe obračuna solventnosti, dok su za finansijsko izveštavanje i dalje u primeni međunarodni računovodstveni standardi.

**Slika 1. Struktura bilansa stanja po Solventnosti I i Solventnosti II**



Izvor: Ernst & Young

Kvalitativni zahtevi, u okviru drugog stuba Solventnosti II, propisuju uslove koje moraju ispuniti lica na ključnim funkcijama u društvima za osiguranje/reosiguranje.<sup>10</sup> Identifikuju se četiri ključne upravljačke funkcije: interna revizija, interna kontrola, upravljanje rizikom i aktuarstvo.<sup>11</sup> Kao deo kvalitativnih zahteva uvodi se i obaveza redovnog sprovođenja sopstvene procene rizika i solventnosti (*ORSA – Own risk and solvency assessment*), čija je svrha predikcija ukupne potrebe za solventnošću, sagledavanje usklađenosti rizičnog profila društva s potrebama za solventnošću i ispunjenost uslova u delu adekvatnosti kapitala i tehničkih rezervi. Posebna pažnja posvećena je procesu poveravanja poslova trećim licima.

Transparentnost u skladu s predmetnim Okvirom postiže se na dva načina: setom propisa za dostavljanje informacija supervizoru, odnosno pravilima koja regulišu koje informacije i na koji način se javno objavljuju.<sup>12</sup> Kao i u skladu s praksom prethodnog zakonodavnog okvira, pored redovnog procesa izveštavanja, na zahtev supervizora društva su u obavezi da sprovedu i vanredno izveštavanje, ali pored kvantitativnih podataka, značajno je proširen opseg kvalitativnih podataka koji su predmet interesovanja supervizije. Novinu predstavlja obaveza objavljivanja Izveštaja

<sup>10</sup> A. Borseli, „Nadzor sistema uprave u osiguravajućim grupama prema Solventnosti II“, *Moderno pravo osiguranja: tekuća pitanja i trendovi*, Palić, 2014, str. 28–43.

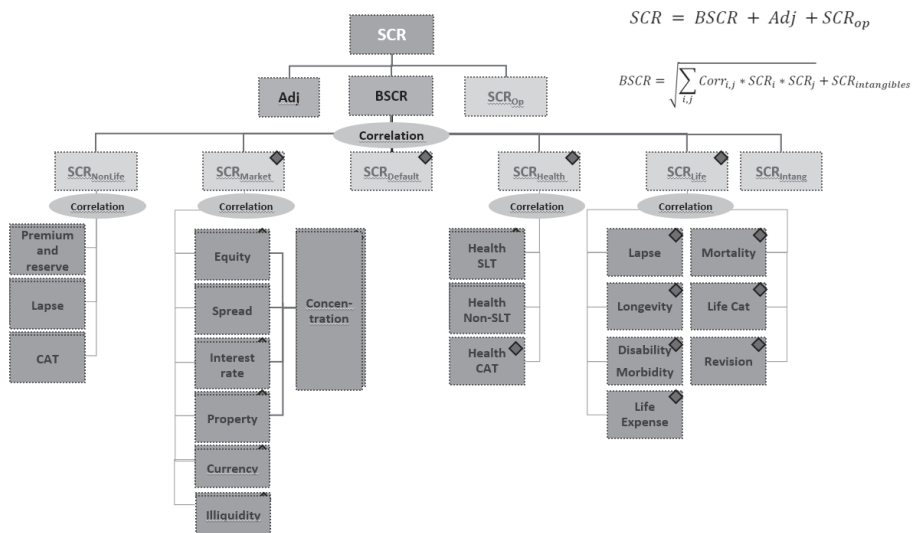
<sup>11</sup> Ljiljana Stojković, „Pravni aspekti upravljanja rizikom i sistem internih kontrola kao integralni deo korporativnog upravljanja u društvu za osiguranje“, *Evropska revija za pravo osiguranja*, br. 3/2013, str. 138.

<sup>12</sup> M. Dreher, *Treaties on Solvency II*, Springer Verlag, Berlin, 2015, str. 345–424.

o solventnosti i finansijskom stanju (*SFCR – Solvency and Financial Condition Report*). Akcenat je stavljen na superviziju grupe, gde je grupa u fokusu kao jedan entitet, pri čemu je bilo potrebno propisati posebna pravila za nadležnosti, koordinaciju i razmenu podataka između supervizija.

Ključna prednost okvira Solventnost II i istovremeno nedostatak prethodnog zakonodavnog okvira za procenu solventnosti, koji je trebalo da se reši uvođenjem nove direktive, jeste *sveobuhvatna procena rizika, implementacija njihove međuzavisnosti i individualizacija rizičnog profila entiteta u zavisnosti od karakteristika portfelja na nivou sitne granulacije parametara od značaja za procenu rizika*.<sup>13</sup>

Slika 2. Dijagram modula rizika prema standardnoj formuli



Izvor: EIOPA

Za razliku od skupa direktiva pod okriljem koncepta Solventnosti I, Direktiva Solventnost II, pored rizika osiguranja, koji se do uvođenja novog koncepta merenja rizika određivao pojednostavljeno i dominantno opredeljeno premijom i štetama entiteta, vrši njegovu dublju segmentaciju, ali istovremeno uvodi i nove module rizika: tržišni rizik, rizik neizmirenja obaveza druge ugovorne strane, operativni rizik i rizik nematerijalne imovine.<sup>14</sup> Sam rizik osiguranja podeljen je na tri modula, i to rizik

<sup>13</sup> B. Kordanuli, Značaj regulatornog okvira Solventnost II na poslovanje društava za osiguranje u Republici Srbiji, doktorski rad, Univerzitet Singidunum, Beograd, 2017, str. 67–76.

<sup>14</sup> P. G. Marly, V. Ruol, *Droit des entreprises d'assurance*, RB édition, Paris, 2011, str. 201.

neživotnog osiguranja, rizik životnog osiguranja i rizik zdravstvenog osiguranja. Da bi se izračunao taj rizik, pored premije i šteta, potrebno je poznavati i njihovu strukturu, dinamiku dospeća, ali i ispitati uticaj prekida osiguranja, odnosno katastrofalnih šteta, kao i drugih parametara od značaja za obračun na gubitak osnovnih sopstvenih sredstava. Jedan od ključnih elemenata na kojima počiva obračun po Solventnosti II jesu korelacione matrice između modula i podmodula rizika. Svrha tih matrica je da valorizuju i u obračunu primene činjenicu da do realizacije svih rizika neće simultano doći, odnosno da će realizacija jednog modula ili podmodula rizika opredeliti verovatnoću javljanja drugih modula i podmodula rizika. U praksi se to manifestuje kroz efekat diverzifikacije, koji utiče na to da ukupan potrebnii kapital za solventnost bude niži od kapitala koji bi se dobio kao zbir potrebnog kapitala po svim modulima rizika.

U središtu svih ciljeva koji se žele postići uvođenjem Solventnosti II je *unapređena zaštita korisnika usluge osiguranja u širem smislu*.<sup>15</sup> Delatnost osiguranja predstavlja prodaju usluge osiguranja unapred, u razmenu za obećanje da će njihova prava biti adekvatno i ažurno ispunjena u slučaju nastanka osiguranog slučaja, što je u krajnjoj instanci garantovano solventnošću društva za osiguranje/reosiguranje. Odatle potiče i potreba da se solventnost adekvatno izmeri. Pored poverilaca za solventnost zainteresovani su i investitori, vlasnici kapitala, budući da je njihov interes direktno povezan sa solventnošću entiteta, odnosno njegovom sposobnošću da u dugom roku izmiri sve svoje obaveze. Svi ostali ciljevi koji se stavljaju pred novu direktivu, kao i alat za njeno sprovođenje, u funkciji su obezbeđenja veće zaštite korisnika usluga, odnosno jasnije slike garancija koje im entitet pruža. Tako se kao jedan od ciljeva koji treba da podrži krovni cilj zaštite interesa korisnika usluge postavlja i modernizacija supervizije osiguranja, na način da se fokus pomera sa posmatranja kvantitativnih pokazatelja i na kvalitativnu komponentu poslovanja, rizični profil i kvalitet upravljanja rizikom, zatim se vrši harmonizacija supervizije na nivou EU i, konačno, da se grupa posmatra kao jedinstven subjekt nadzora.<sup>16</sup> Jedna od intencija okvira je da se društva za osiguranje/reosiguranje motivišu da upravljaju rizikom, budući da potreban solventni kapital direktno zavisi od efikasnosti ovog procesa. To treba da doprinese i racionalnijoj i efikasnijoj alokaciji ograničenog kapitala. Poslednji cilj, koji je i produkt prethodno navedenih, i čija će uspešnost zavisiti od realizacije prethodnih, jeste unapređenje konkurentnosti EU društava za osiguranje/reosiguranje na globalnom tržištu.<sup>17</sup>

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<sup>15</sup> Iva Tošić, „Izazovi u implementaciji Direktive Solventnost II u Srbiji“, *Pravo i privreda*, br. 7-9/2017, str. 527.

<sup>16</sup> P. Marano, „Nova nadzorna paradigma: kultura nošenja rizika i etički kodeks“, *Pravo osiguranja, uprava i transparentnost – osnove pravne sigurnosti*, Palić, 2015, str. 171–175.

<sup>17</sup> Osnovni alat pomoću koga se ispunjavaju postavljeni ciljevi jeste tržišno konzistentno vrednovanje aktive i obaveza. Napušta se koncept vrednovanja po nabavnoj vrednosti i amortizovanoj vrednosti, odnosno prema statičkoj vrednosti parametara od značaja za obračun važećih u momentu sklapanja ugovora. Taj koncept se zamenjuje tržišnim vrednovanjem prema aktuelnoj vrednosti parametara od značaja za

Predstojeći proces harmonizacije sa pravnim tekovinama EU, uključujući i Direktivu Solventnost II, koji čeka sve zemlje koje teže prijemu u ovu zajednicu, i pored toga što je prožet brojnim izazovima i dodatnim troškovima, ne treba posmatrati kao proces urušavanja postojećeg zakonodavnog okvira i njegovih dobrobiti koje crpimo iz već uspostavljene usklađenosti, već kao **izgradnju nove zakonodavne infrastrukture koja svim učesnicima na tržištu treba da pomogne da obezbede dugoročnu stabilnost sopstvenih, ali i istovremeno ispunjenje opštih interesa.** Društva za osiguranje/reosiguranje treba da u procesu harmonizacije budu subjekti koji će identifikovati svoje šanse i iskoristiti ih, na način što će se prvi prilagoditi i što će adekvatnije uskladiti svoje poslovanje, rizične profile i kapital. Proces harmonizacije s tekovinama EU je transparentan i neizbežan, i ukoliko se posmatra iskustvo zemalja EU, neminovno će dovesti do izmena u strukturi portfelja proizvoda, načinu investicija, strukturi tržišta, pozicioniranosti društava za osiguranje/reosiguranje i izmenjenoj alokaciji kapitala.

## **II. Razvoj i rezultati primene Solventnosti II na tržištu EU**

Preteča Direktive Solventnost II, režim Solventnost I, koji je predstavljen kroz 14 direktiva, razvijao se od početka sedamdesetih godina 20. veka. Već u tom razdoblju primećeno je da do insolventnosti društava za osiguranje u više od polovine zabeleženih slučajeva dolazi iz razloga koji nisu direktno vezani za rizike osiguranja. U periodu od 1996. do 2004. godine na području EU došlo je do zatvaranja 76 društava za osiguranje usled problema sa solventnošću, a veći broj njih pretrpeo je poteškoće u delu solventnosti koje su sanirane.<sup>18</sup> Nedostaci tog sistema postali su naročito očigledni tokom finansijske krize iz 2008. godine. Tada je postalo jasno da postojeći model procene rizika nije dovoljno precizan i osetljiv na rizik pojedinačnih entiteta, odnosno da ne uključuje bitne komponente rizika: tržišni rizik, rizik neizmirenja obaveza druge ugovorne strane i operativni rizik.<sup>19</sup> To je u značajnoj meri sprečavalo sprovođenje ažurne i adekvatne intervencije supervizora,<sup>20</sup> te ograničavalo optimalnu alokaciju kapitala investitora. Međutim, o novom okviru za procenu rizika počelo je da se razmišlja već početkom 21. veka. Tada je konstatovano da nacionalne regula-

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obračun, pri čemu sredstva i obaveze vrede onoliko koliko ih procenjuje tržište. Konačno, uvode se stres testovi u smeru negativnih odstupanja pojedinih parametara, a u cilju procene potencijalnog gubitka sopstvenih sredstava i posledično potreba za kapitalom koji ih može amortizovati radi obezbeđenja ispunjenja obaveza i kontinuiteta poslovanja.

<sup>18</sup> Vladimir Čolović, „Primena projekta Solventnost II i mere koje su predviđene u Zakonu o osiguranju Srbije u slučaju neprimene pravila o upravljanju rizikom“, Zlatibor, 2013, str. 28-43.

<sup>19</sup> N. Petrović Tomić, „Pravo osiguranja, Sistem, Knjiga prva, Službeni glasnik, Beograd, 2019, str. 277-278.

<sup>20</sup> Vladimir Čolović, „Uticao primene projekta Solventnost II na osiguravajuća društva u Srbiji“, Zbornik radova *Harmonizacija zakonodavstva Republike Srbije sa pravom Evropske unije (II)*, Institut za međunarodnu politiku i privredu, Institut za uporedno pravo, Hans Zajdel Fondacija, Beograd 2012, str. 368-369

tive u okviru zemalja EU imaju značajnu slobodu u oblikovanju pravila za procenu solventnosti, čime su generisani nejednaki uslovi za poslovanje entiteta iz različitih nacionalnih sistema na jedinstvenom tržištu EU. Kao osnovni cilj u tom trenutku postavila se harmonizacija i definisanje jedinstvenih pravila za poslovanje društava za osiguranje na tržištu zajednice evropskih naroda. Trebalo je gotovo petnaest godina da se izgradi nov sistem, koji je počeo da funkcioniše 1. 1. 2016. godine.<sup>21</sup>

Međutim, i pored toga što je Direktiva uhvatila korena početkom 2016. godine, zbog intenziteta promena i očekivanih finansijskih i infrastrukturnih poteškoća da se odmah prilagode novom okviru, predviđen je prelazni period u kome je ostavljen prostor društvima za osiguranje/reosiguranje da u pojedinim segmentima izvrše postepeno usklađivanje svog poslovanja:<sup>22</sup>

- mere za vrednovanje tehničkih rezervi koje omogućavaju postepen prelazak na potpuno tržišno konzistentan pristup vrednovanju tokom perioda od 16 godina, ali isključivo za ugovore zaključene pre 1. 1. 2016. godine; mere se sastoje u obračunu tehničkih rezervi prema diskontnim stopama iz okvira Solventnosti I ili obračunu tehničkih rezervi prema odredbama ovog okvira;
- tolerantnost prema entitetima koji krše ispunjenost zahteva u delu potrebnog solventnog kapitala tokom perioda od prve dve godine;
- zadržavanje postojećih hibridnih stavki sopstvenog kapitala pod okvirom Solventnosti I tokom perioda od 10 godina u okviru kojih se struktura kapitala mora usaglasiti sa zahtevima direktive Solventnost II;
- duži rokovi za dostavljanje kvartalnih i godišnjih izveštaja supervizoru i za informisanje javnosti, koji se postepeno skraćuju sa 20 nedelja na 14 nedelja nakon završetka finansijskog izveštavanja za prve tri godine.

Procene su da je jednokratni trošak uvođenja Solventnosti II za sva društva za osiguranje/reosiguranje na tržištu EU iznosio između tri i četiri milijarde EUR. Takođe, utvrđeno je da je ukupan višak kapitala iznad potrebnog solventnog kapitala na nivou celokupnog tržišta gotovo na istom nivou kao tokom perioda neposredno pre uvođenja nove direktive, tj. tokom važenja okvira Solventnost I, samo što je alokacija kapitala posmatrana po pojedinačnim entitetima, a usled preciznijeg i sveobuhvatnijeg merenja rizika, značajno efikasnija.<sup>23</sup>

Prema poslednjim podacima ostvarena medijana SCR racija, kao odnos raspoloživog i potrebnog kapitala za solventnost, na tržištu EU iznosi preko 215%,

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<sup>21</sup> O koliko se složenom procesu radi svedoči čak šest sprovedenih kvantitativnih studija uticaja tokom perioda pripreme za implementaciju (priprema studija i pet studija uticaja), čiji je zadatak bio da sagleda efekat primene nove direktive, da omogući njenu kalibraciju, odnosno da pruži priliku društvima za osiguranje/reosiguranje da priprema resurse za sprovođenje novog zakonodavnog okvira u svom poslovanju. Nakon intenzivnog rada, Direktiva Solventnost II je usvojena u novembru 2009.

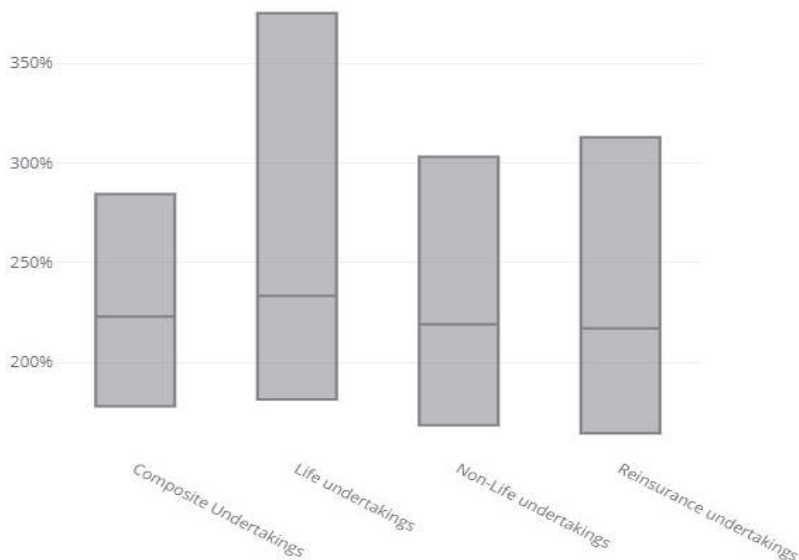
<sup>22</sup> Iva Tošić, „Nadzor osiguranja – Direktiva Solventnost II”, *Strani pravni život*, br. 2/2017, str. 147–162.

<sup>23</sup> Solvency II Overview (europa.eu)



dok čak 75% entiteta beleži ovaj racio iznad 160%.<sup>24</sup> Posmatrano po tipu entiteta, raspodela SCR racija je slična, pri čemu društva koja se bave isključivo životnim osiguranjem imaju medijanu racija solventnosti na nivou od 233%, dok kompozitna društva, društva za neživotna osiguranja i društva za reosiguranje respektivno beleže medijanu od 223%, 219% i 217%.

**Slika 3. SCR racio, distribucija po tipu entiteta na tržištu EU i EEA<sup>25</sup>**



Izvor: EIOPA, Insurance Overview Report 2023.

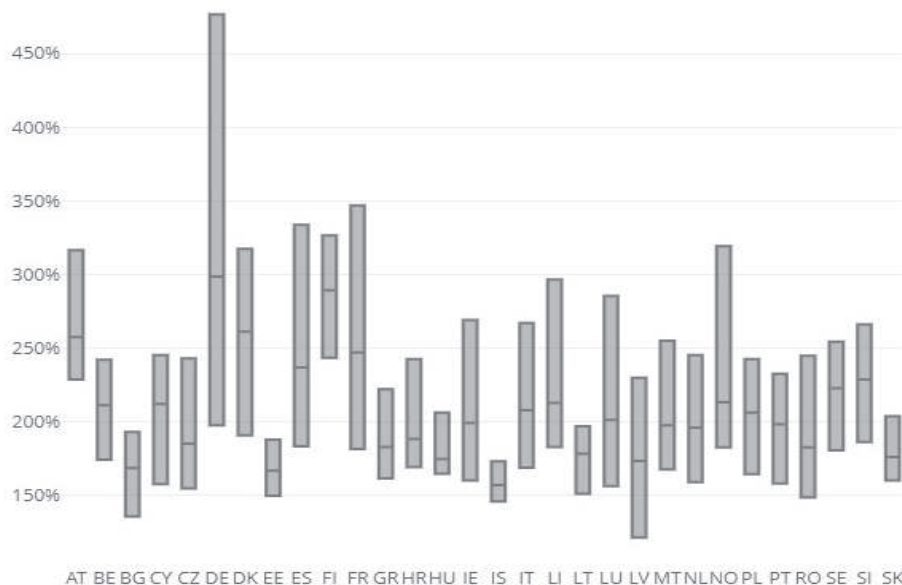
Posmatrano po zemljama članicama EU, najviše nivoa racija solventnosti beleže društva u Nemačkoj, gde je zabeležena medijana racija od 299%, dok je ovaj pokazatelj najniži na Islandu, gde je na nivou od 157%. Zemlje bivše Jugoslavije, danas članice EU, Slovenija i Hrvatska, ostvarile su medijanu racija od respektivno 229% i 170%. S druge strane, zemlje iz našeg okruženja Rumunija, Mađarska i Bugarska redom beleže predmetni pokazatelj na nivou od 183%, 175% i 169%. Imajući u vidu strukturu njihovog tržišta, stepen razvoja delatnosti osiguranja, kao i ostvareni nivo privrednog razvoja, ostvareni pokazatelji racija solventnosti u tim zemljama treba da budu ciljani i očekivani i za naše tržište nakon primene Direktive Solventnost II. To je značajno niže od ostvarenog nivoa solventnosti za našu zemlju po okviru

<sup>24</sup> European Insurance Overview report 2023 - European Union (europa.eu).

<sup>25</sup> Studija pored država članica EU, uključuje i Island, Lihtenštajn i Norvešku (nap. aut.). Napomena se odnosi na slike 3, 4, 5 i 6.

Solventnost I, prema kome je prema poslednjim podacima ukupan ratio solventnosti tržišta za društva koja se pretežno bave neživotnim osiguranjem 206,4%, kod društava koja se pretežno bave životnim osiguranjem 210,6%, dok je kod društava za reosiguranje 231,1%.<sup>26</sup>

**Slika 4. SCR ratio, distribucija po zemljama članicama EU i EEA**



Izvor: EIOPA, Insurance Overview Report 2023.

Koliko je prelazak sa okvira Solventnost I na Solventnost II u značajnoj meri promenio način identifikacije, ocene i upravljanja rizikom, proširenjem opsega posmatranja sa isključivo rizika osiguranja i na druge module rizika, svedoči podatak da je prema rezultatima za sve zemlje članice EU, tržišni rizik, koji se po prethodnoj regulativi nije ni merio, pojedinačno najdominantnija stavka, modul rizika, u ukupno potrebnom osnovnom kapitalu za solventnost.<sup>27</sup> Učešće predmetnog modula se kreće počev od 56% kod društava koja se bave neživotnim osiguranjem do preko 70% kod kompozitnih društava, odnosno društava za reosiguranje. S druge strane, rizik osiguranja, koji obuhvata module rizika životnog, rizika neživotnog i rizika zdrav-

<sup>26</sup> Narodna banka Srbije, Sektor osiguranja u Republici Srbiji, *Izveštaj za 2022. godinu*.

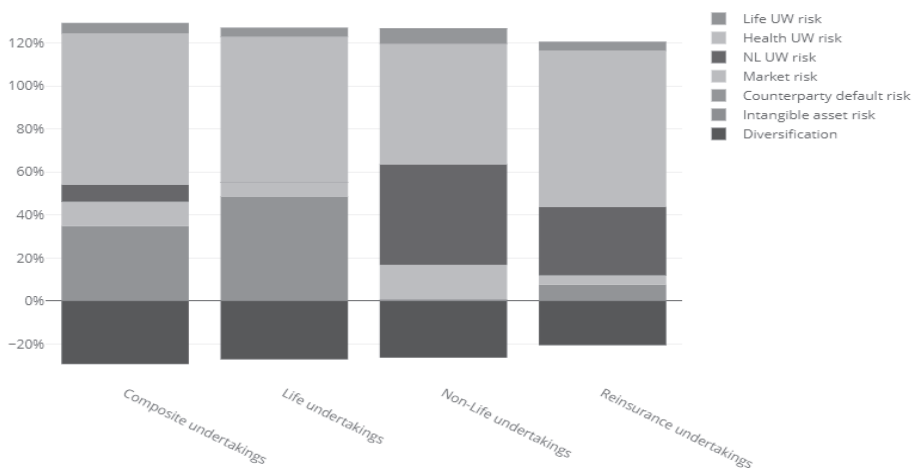
<sup>27</sup> N. Gatzert, M. Martin, „Quantifying Credit and Market Risk under Solvency II: Standard Approach versus Internal Model”, 2012, str. 5–21.

stvenog osiguranja, kod kompozitnih društava apsorbuje 54% osnovnog potrebnog kapitala za solventnost, kod društava za životno osiguranje ovaj pokazatelj iznosi 55%, kod društava za neživotna osiguranja 64% i kod društava za reosiguranje 42%.

Značajan je i efekat korelacije rizika, odnosno efekat uzajamnog isključivanja rizika, potpunog ili delimičnog, koji utiče na to da ukupan potrebni kapital za solventnost bude niži od zbira potrebnog kapitala za solventnost po svim podmodulima, odnosno modulima rizika. Uticaj navedenog fenomena se kreće između -20% i -30% na osnovni potreban kapital za solventnost, u zavisnosti od tipa entiteta.

Rizik od neizmirenja obaveza druge ugovorne strane, za razliku od naše zemlje i prvih kvantitativnih studija uticaja kroz koje se pokazao kao materijalno značajan, na tržištu EU nema tako istaknut uticaj, budući da mu se učešće u osnovnom potrebnom solventnom kapitalu kreće između 4% i 7%, u zavisnosti od vrste poslova osiguranja kojima se entitet bavi.<sup>28</sup>

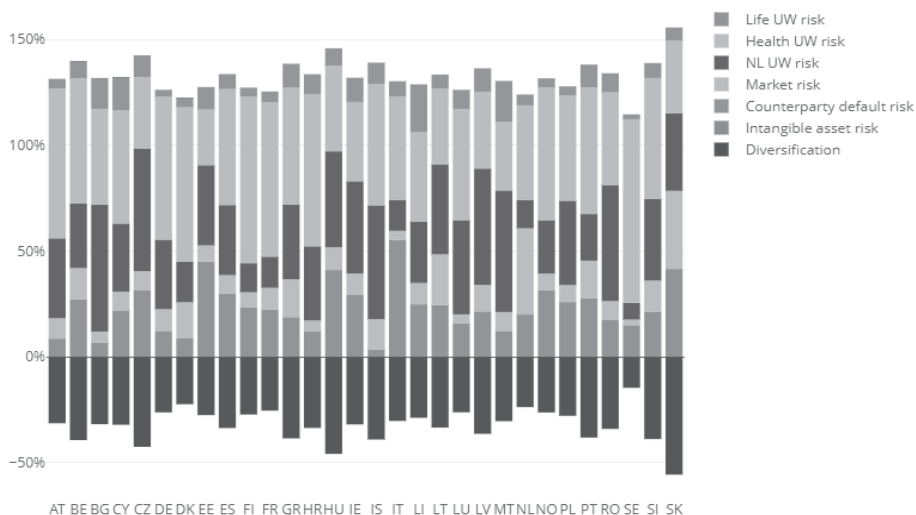
**Slika 5. Struktura BSCR prema standardnoj formuli**



Izvor: EIOPA, Insurance Overview Report 2023.

<sup>28</sup> Branko Pavlović, „Koji je rizik najveći za osiguravače?“, Svet osiguranja, 2019.

Slika 6. Struktura BSCR prema standardnoj formuli po zemljama članicama EU i EEA



Izvor: EIOPA, Insurance Overview Report 2023.

Posmatrano po zemljama članicama, postoji grupa zemalja gde je učešće tržišnog rizika u ukupno potrebnom kapitalu za solventnost preko 70%. Radi se uglavnom o državama van evrozone, kao što su Švedska, u kojoj je učešće tržišnog rizika čak 87%, zatim Finska (79%) i Danska (73%). Visoko učešće tržišnog rizika beleži i Francuska (73%), Hrvatska (72%) i Austrija (71%).

Efekat diverzifikacije je naročito izražen u Slovačkoj, gde korelacija rizika smanjuje potreban solventni kapital za 56%, zatim u Mađarskoj, u kojoj je ovaj efekat -46%, odnosno Češkoj, gde je uticaj diverzifikacije -42%.

Slika 7. Struktura tržišta EU prema ostvarenom SCR i MCR racio pokazatelju

		ŽIVOT			NEŽIVOT		
		<100%	>100%;<150%	>150%	<100%	>100%;<150%	>150%
MCR	>150%	0,20%	12,52%	84,29%	0,14%	11,86%	84,32%
		0,02%	21,66%	78,31%	0,05%	13,32%	86,24%
	>100%;<150%	0,00%	0,20%	2,78%	0,14%	0,27%	2,93%
		0,00%	0,00%	0,00%	0,01%	0,01%	0,03%
	<100%	0,00%	0,00%	0,00%	0,20%	0,00%	0,14%
		0,00%	0,00%	0,00%	0,34%	0,00%	0,00%
		SCR			SCR		

		REOSIGURANJE			KOMPOZITNA DRUŠTVA		
		<100%	>100%;<150%	>150%	<100%	>100%;<150%	>150%
MCR	>150%	0,96%	18,21%	78,27%	0,26%	8,44%	89,77%
		0,01%	3,33%	96,65%	0,00%	11,10%	88,89%
	>100%;<150%	0,00%	0,00%	0,00%	0,00%	0,26%	1,28%
		0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
	<100%	0,32%	0,64%	1,60%	0,00%	0,00%	0,00%
		0,00%	0,00%	0,01%	0,00%	0,00%	0,00%
		SCR			SCR		

Izvor: EIOPA, Insurance Overview Report 2021.

Sa Slike br. 7, zasnovane na podacima za 2020. godinu, jasno se uočava da velika većina entiteta na jedinstvenom tržištu EU beleži visoke pokazatelje SCR i MCR. To su polja označena zelenom bojom, gde su oba racija iznad 150%. Ukoliko gornji pokazatelj predstavlja učešće mereno brojem entiteta, a donji pokazatelj učešće mereno aktivom, vrlo visoke racio brojeve solventnosti beleži između 78,27% društava i 89,77% društava, u zavisnosti od vrste posla kojima se bave. Zakonske uslove u pogledu solventnosti ispunjavaju i entiteti koji su svoje mesto našli u žutim poljima, dok neznatan broj entiteta beleži poteškoće u ispunjenju zakonskih odredaba

vezanih za solventnost (polja označena sivom bojom). Kod njih je jedan od dva racija solventnosti ispod 100%, a njihovo učešće se kreće od 0,22% entiteta do 3,54%, u zavisnosti od vrste poslova za koje imaju dozvolu za obavljanje delatnosti.

Tržištu osiguranja EU predstoji reforma Direktive Solventnost II.<sup>29</sup> Već prilikom uvođenja Direktive plan je bio da se nakon pet godina i sagledavanja efekata njene primene pristupi reviziji pojedinih segmenata.<sup>30</sup> Taj proces je odložen i usponen usled globalne pandemije, ali očekuje se da tokom 2025. godine reformisane odredbe stupe na snagu. Snažan uticaj na izgled budućeg zakonodavnog okvira imaće klimatske promene, zelena agenda, iskustva s nedavnom pandemijom i intencija regulatora da se dâ impuls dugoročnim investicijama.<sup>31</sup> Poseban izazov će biti kako pomiriti potrebe i ciljeve reforme oblikovane u uslovima niskih kamatnih stopa kada u momentu njihovog usvajanja i stupanja na snagu kamatne stope budu na znatno višem nivou.<sup>32</sup>

Očekuje se da će evropska regulatorna i zakonodavna tela u narednom periodu, a poučena prethodnim iskustvom da se sektor osiguranja pokazao izuzetno otpornim na uslove sistemskih kriza, ići u pravcu oslobađanja kapitala. Jedan od planiranih delova reformi koja se razmatra odnosi se na smanjenje troška kapitala prilikom obračuna riziko margine, i spuštanja stope sa 6% na 4,5%, što će, prema prognozama, umanjiti riziko marginu između 30% i 40% kod pojedinih entiteta, odnosno osloboditi više od 50 mlrd EUR kapitala, koji će postati slobodan za druge projekte i ciljeve. Navedeni iznos predstavlja značajnu relaksaciju budući da je ukupna riziko margina na tržištu EU okvirno 140 mlrd EUR.<sup>33</sup>

Reforme Direktive idu i u pravcu preferencijalnog tretmana dugoročnih kapitalnih ulaganja koja služe za pokriće dugoročnih obaveza. Pošto se radi o namenskim sredstvima, pri čemu se mora dokazati da su namenjene pokriću dugoročnih obaveza, kao takva nisu namenjena prodaji i predmet su samo 22% kapitalnih troškova. Očekivanja su da će predmetna izmena osloboditi preko 10 mlrd EUR kapitala na nivou EU.

Značajan segment reformi biće posvećen i konstrukciji krive prinosa, naročito u segmentu iznad 20 godina dospeća, gde se u praksi pokazalo da je bezrizična kamatna stopa dobijena ekstrapolacijom, a koja se koristi za diskont po Solventnosti II, bila značajno viša od tržišnih stopa, naročito u uslovima niskih kamatnih stopa

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<sup>29</sup> Insurance Europe, „Solvency II Review and Insurance Recovery & Resolution Directive“, 2022, str. 1–8.

<sup>30</sup> EIOPA, „Opinion on the 2020 review of Solvency II“, 2020, str. 14–99.

<sup>31</sup> Nataša Petrović Tomić, „Usklađenost poslovanja sa ESG standardima – osnovne održivog poslovanja“, u V. Radović (ured.), *Usklađivanje poslovnog prava Srbije sa pravom EU*, Pravni fakultet u Beogradu, Beograd 2023, str. 69–95.

<sup>32</sup> G. Bernardino, G., „Keynote speech: 2020 Solvency II review: Opportunities and Challenges“, EIOPA, 2020. Dostupno na: <https://www.eiopa.europa.eu/system/files/2020-02/2020-01-29-gbe-solvency-ii-opportunities-and-challenges.pdf>. Posećeno: 10.4. 2024.

<sup>33</sup> Insurance Europe, „Solvency II Review key messages ahead of trilogues“, September 2023.

kada je reforma započeta. Očekivanja su da će ta izmena izvršiti pritisak na rast tehničkih rezervi entiteta.<sup>34</sup>

Planirana je i izmena u delu prilagođavanja za volatilnost, kako bi ovaj mehanizam postao još efikasniji, a na način da se procenat raspona korigovanog rizikom poveća sa sadašnjih 65% na 85%, odnosno da se time entiteti motivišu da ostvare dodatne benefite u delu kapitalnih zahteva kroz upravljanje aktivnom i pasivom. To će omogućiti entitetima sa dobrom praksom u delu ALM da dodatno uvećaju svoje diskontne stope i time smanje obaveze.

Izmene će pretrpeti i ORSA izveštaj, čiji će sastavni deo vrlo izvesno postati ispitivanje uticaja scenarija klimatskih promena u delu rasta prosečne temperature. Planirano je sagledavanje efekata dva scenarija, pri čemu bi se prvi scenario odnosio na rast globalne temperature ispod 2 stepena Celzijusa, dok bi drugi scenario podrazumevao značajno veći rast prosečnih temperatura.

Opšti utisak je da je prethodni period pokazao da je tržište osiguranja EU više nego kapitalizovano i da pored potrebe za daljim unapređenjem alokacije kapitala među učesnicima na tržištu postoji prostor da se deo kapitala oslobodi. Procene su da postoji „višak“ od gotovo 100 mlrd EUR, koji može biti upotrebljen za finansiranje obnove ekonomije EU nakon pandemije i razvoj tržišta kapitala, te usmeren u „zelene“ projekte.

### **III. Implementacija Solventnosti II na tržištu osiguranja Srbije**

Zakonski okvir koji reguliše delatnost osiguranja u Republici Srbiji, a čija je baza Zakon o osiguranju,<sup>35</sup> predstavlja hibridni sistem koji u sebi sadrži i implementira većim delom odredbe okvira Solventnost I, ali jednim delom, pre svega u segmentu kvalitativnih zahteva, uvodi i zahteve Direktive Solventnost II. Budući da sadrži kolaž odredaba iz dve generacije zakonskih propisa iz dela solventnosti, kolokvijalno se često upotrebljava i naglašava da je kod nas na snazi režim Solventnosti 1,5.

Zahtevana margina solventnosti, tj. zahtevani kapital se shodno sadašnjem pravnom okviru računaju prema odredbama okvira Solventnosti I,<sup>36</sup> ali je u primenu uveden niz kvalitativnih zahteva nove evropske direktive, pre svega: uslovi za osnivanje društva, osnovne upravljačke funkcije,<sup>37</sup> sadržina mišljenja ovlašćenog aktuara, kriterijumi za podobnost članova uprave, predugovorno informisanje, poveravanje

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<sup>34</sup> Milliman, „EIOPA Consultation Paper on the Opinion on the 2020 review of Solvency II: Standard Formula Solvency Capital Requirement“, 2019, str. 17–19. Dostupno na: [https://assets.milliman.com/ektron/Solvency\\_II\\_2020\\_Review\\_SCR\\_Standard\\_Formula.pdf](https://assets.milliman.com/ektron/Solvency_II_2020_Review_SCR_Standard_Formula.pdf). Posećeno: 10. 4. 2024.

<sup>35</sup> *Službeni glasnik RS*, br. 139/2014 i 44/2021.

<sup>36</sup> Narodna banka Srbije, „Odluka o adekvatnosti kapitala društava za osiguranje/reosiguranje“, *Sl. glasnik*, br. 51/2015.

<sup>37</sup> Narodna banka Srbije, „Odluka o sistemu upravljanja u društvu za osiguranje/reosiguranje“, *Sl. glasnik*, br. 51/2015, 29/2018, 84/2020 i 94/2022.

poslova trećim licima i jednim delom ORSA izveštaj.<sup>38</sup> U pomenutim segmentima preuzetim iz Solventnosti II domaći entiteti gotovo ne zaostaju za standardima koji važe za društva za osiguranje na jedinstvenom tržištu EU. Pored kvalitativnih zahteva, u domaću regulativu je uveden i jedan, manji deo kvantitativnih zahteva aktuelne direktive na tržištu EU, kao što su kvalitet podataka, segmentacija, obaveza sprovođenja testova poređenja sa iskustvom i adekvatnosti obračuna tehničkih rezervi. Imperativ potpunog usvajanja i usaglašavanja sa Direktivom Solventnost II postoji najkasnije do ulaska zemlje u EU.<sup>39</sup>

Proces uvođenja Direktive Solventnost II na domaćem tržištu oblikovan je i usmeravan od strane regulatora, Narodne banke Srbije, koja je osnovne principe i faze primene predmetne Direktive formulisala kroz dokument „Strategija za implementaciju Solventnosti II u Republici Srbiji“,<sup>40</sup> a koja je poslednji put ažurirana u maju 2021. godine. Ažuriranje strategije uslovljeno je dominantno pandemijskom krizom i posledičnom nemogućnošću da se u uslovima globalne krize sprovedu aktivnosti na planu faze implementacije evropske direktive. Istovremeno, kriza je i u EU uslovila da se prolongira planirana revizija Direktive.

Strategija za implementaciju Solventnosti II u Republici Srbiji predviđa faznu implementaciju nove direktive, kroz pripremnu fazu i još tri etape.<sup>41</sup> Pripremna faza koja je obuhvatala implementaciju pojedinih odredaba Solventnosti II u domaće zakonodavstvo završena je 2014. i 2015. godine usvajanjem Zakona o osiguranju i podzakonskih akata donetih na osnovu tog zakona. Naredna etapa, faza usklađenosti, sprovedena je tokom 2017. godine i obuhvatala je analizu usklađenosti domaćeg i evropskog zakonskog okvira. Posebno je analizirana primena člana 4. Direktive, koja precizira isključenje primene predmetne Direktive na najmanja društva za osiguranje/reosiguranje. Tom prilikom je zaključeno da bi sva domaća društva bila u obavezi da primenjuju Direktivu. Faza procene efekata započela je sprovođenjem kvantitativnih studija uticaja (*Quantitative impact study – QIS*), kojima su se testirali efekti primene zahteva Solventnost II na tehničke rezerve i adekvatnost kapitala. Cilj kvantitativnih studija uticaja je ocena spremnosti tržišta u celini, odnosno pojedinih društava da implementiraju zahteve Direktive i sagledaju posledice njene primene, odnosno da se ukaže na sistemske rizike i da se oni identifikuju, kao i daju smernice društvima u kom pravcu treba da upravljaju rizicima kojima su izložena. Do početka

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<sup>38</sup> Lj. Stojković, „Pravni aspekti sistema upravljanja u društvu za osiguranje i princip srazmernosti prema Direktivi o solventnosti II“, U: *Srazmernost i pravna izvesnost u pravu osiguranja*. Palić: Udruženje za pravo osiguranja Srbije, 2017, str. 279-293

<sup>39</sup> I. Tošić, „Uticaj direktive Solventnost II na sektor osiguranja u Evropi“, *Godišnjak fakulteta pravnih nauka*, Banja Luka, 2017, str. 306–309.

<sup>40</sup> Zorica Šipovac, „Solventnost II u Republici Srbiji – Realno stanje u teoriji i praksi“, *Zbornik radova SORS*, 2017, str. 235-249.

<sup>41</sup> N. Petrović Tomić, *Osnove prava osiguranja*, Drugo, dopunjeno izdanje, Pravni fakultet Univerziteta u Beogradu, Beograd 2023, str. 53-54.



2024. godine sprovedene su ukupno tri QIS studije, a planirano je njihovo redovno, kontinuirano sprovođenje do potpune primene zahteva Direktive. Poslednja etapa podrazumeva fazu usklađivanja regulatornog okvira. Navedena faza sprovodiće se u skladu s analizama i rezultatima QIS studija, dok će vremenski okvir dominantno biti opredeljen tokom i dinamikom pregovora o pristupanju Republike Srbije Evropskoj uniji. Predmetna faza obuhvatiće prilagođavanje regulatornog okvira kroz Zakon o osiguranju, u koji će se transponovati odredbe Direktive Solventnost II, odnosno Zakona o stečaju i likvidaciji banaka i društava za osiguranje. Projekat implementacije i završetak te faze Strategije biće realizovani s postizanjem potpune usklađenosti domaćeg pravnog okvira sa Direktivom Solventnost II, a na način i u skladu s rokovima definisanim Nacionalnim programom za usvajanje pravnih tekovina Evropske unije.<sup>42</sup>

U samom proces implementacije Direktive, pored Narodne banke Srbije i društava za osiguranje/reosiguranje, uključeni su ili se očekuje da budu uključeni u narednom periodu: Ministarstvo finansija Republike Srbije, Agencija za osiguranje depozita, Udruženje osiguravača Srbije, Udruženje aktuara Srbije i dr. Olakšavajuća okolnost u procesu usvajanja tekovina savremene evropske regulative jeste činjenica da većina domaćih entiteta ima svoju matičnu firmu u nekoj od zemalja EU, i da zbog propisa u delu supervizije grupe, odnosno potreba za internim analizama, imaju obavezu da vrše obračune i izveštavaju matične kuće po okviru Solventnost II. Pored prilike da se u praksi upoznaju sa zahtevima Direktive, sagledaju efekte primene, domaća društva u stranom vlasništvu imaju obezbeđen transfer znanja, što će proces uvođenja Direktive na našem tržištu u velikoj meri pojednostaviti.

Posmatrano prema zahtevima važeće regulative koja odgovara okviru Solventnost I, raspoloživa margina solventnosti prema podacima za kraj 2022. godine za celo tržište iznosi 49,7 mlrd RSD, dok je zahtevana margina 23,7 mlrd RSD. Sledi da je rasio solventnosti za tržište, kao odnos raspoložive i zahtevane margine solventnosti, 209,70%. Rasio solventnosti za društva koja se pretežno bave neživotnim osiguranjima, društva koja se pretežno bave životnim osiguranjima i društva za reosiguranje respektivno iznosi 206,4%, 210,6% i 231,1%.<sup>43</sup>

Zaključujemo da je tržište osiguranja u Srbiji trenutno visoko kapitalizovano. Imajući u vidu iskustva zemalja regiona, kao i nezvanične rezultate QIS studija u našoj zemlji, možemo očekivati da sa usvajanjem tekovina Direktive u punom obimu dođe do pada racija solventnosti, ali da će se ovaj pokazatelj za ukupno tržište, kao i za većinu entiteta, održati na stabilnom nivou, koji garantuje visoku zaštićenost prava korisnika usluga osiguranja.

QIS studije su ukazale na sistemske izazove kojima domaći sektor osiguranja mora da se bavi u narednom periodu, kao i pravce poželjnog usmeravanja pojedinačnih poslovnih profila entiteta u cilju adekvatnog upravljanja rizikom i kapitalom.

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<sup>42</sup> Narodna banka Srbije, „Strategija za implementaciju Solventnosti II u Republici Srbiji“, maj 2021.

<sup>43</sup> Narodna banka Srbije, „Sektor osiguranja u Republici Srbiji, Izveštaj za 2022. godinu“

Očekuje se *značajna izmena strukture bilansa za potrebe obračuna solventnog kapitala*, u okviru koje će vrlo izvesno doći do pada tehničkih rezervi i rasta kapitala, uz takođe paralelni rast potrebnog kapitala za solventnost. Prvi obračuni skreću pažnju i na visoko učešće rizika modula neispunjenja obaveza druge ugovorne strane, koji na tržištu EU nema značajnu ulogu u riziko profilu, gde s druge strane dominira modul tržišnog rizika. Zajednička karakteristika je da modul rizika osiguranja apsorbuje manje od polovine kapitalnog zahteva, što ukazuje na sveobuhvatnost, značaj i prednost prelaska na novi koncept identifikacije i merenja rizika. Pored usvajanja tekovina Direktive, koja trenutno i u EU trpi reformu, kao poseban izazov za domaća društva biće poslovanje u uslovima slobode pružanja usluge, u okviru koje se u svakoj od članica jedinstvenog tržišta mogu osnivati podružnice društava iz drugih zemalja članica, čime će se pozicija domaćih entiteta učiniti dodatno složenom. Paralelno sa pomenutim procesima teći će i usvajanje MSFI 17, odnosno drugih tekovina savremene evropske regulative.

## **IV. Izazovi implementacije Solventnosti II**

Na osnovu iskustava evropskih zemalja u procesu usvajanja tekovina Direktive Solventnosti II, pre svega zemalja okruženja i onih sličnog nivoa privredne razvijenosti, specifičnosti naše zemlje i domaćeg tržišta osiguranja, odnosno rezultata prvih kvantitativnih studija uticaja, identifikovano je niz sistemskih izazova koje treba rešiti ili im se prilagoditi u procesu harmonizacije.

### **1. Segmentacija u linije poslovanja i prepoznavanje granica ugovora**

Početni korak u obračunima po novom okviru predstavlja segmentacija poslovanja. Međutim, umesto segmentacije portfelja na vrste i tarife osiguranja, kako propisuje sadašnja regulativa, obračuni po Direktivi Solventnost II zahtevaju podelu portfelja na unapred definisane linije poslovanja. *Izazov za domaća društva je to što se ne radi o direktnom preslikavanju vrsta osiguranja na linije poslovanja, već o različitom pogledu.* Podela na linije poslovanja u značajnoj meri odslikava duh i specifičnosti tržišta osiguranja zapadnih zemalja, gde je značajan akcenat na osiguranju života i lica. To uzrokuje da pored suštinskih poteškoća i dilema uslovljenih različitom segmentacijom portfelja po sadašnjem i novom okviru, entiteti imaju i tehničke probleme kako da u svojim bazama identifikuju pojedine tarife, odnosno tarifne grupe, i izdvoje ih na način kako propisuje Solventnost II. To je naročito složeno jer se radi o istorijski dugim serijama podataka koji su evidentirani po prethodnom okviru. Problem je i što su pojedine karakteristike proizvoda koje su ključne za njihovu segmentaciju evidentirane i prepoznate kroz doplatak, popust ili drugi faktor korekcije na nivou tarifne grupe, pa ih je čak i na najnižem nivou evidentiranja komplikovano

identifikovati.<sup>44</sup> Pored segmentacije portfelja, izazov predstavlja i određivanje granice ugovora. Direktiva Solventnost II jasno propisuje šta su granice ugovora, međutim, dosadašnja regulativa je na drugi način tretirala trajanje ugovora, pa kada govorimo o istorijskim podacima potrebnim za obračune, treba uzeti sa rezervom koliko su društva u stanju precizno da identifikuju stvarne granice ugovora, naročito stoga što u praksi postoji niz specifičnih ugovora kod kojih su granice ugovora uglavnom prolongirane, a sistemski se vode kao standardni ugovori. Očekuje se da će domaća društva za osiguranje u narednom periodu ući u izmene svojih proizvoda i sistema za evidentiranje poslovanja na način koji će omogućiti segmentaciju portfelja prema pravilima koja propisuje dolazeći zakonodavni okvir, odnosno podržati preciznije prepoznavanje granica ugovora.

## **2. Izmenjena struktura bilansa stanja za potrebe obračuna zahteva za solventnošću**

Prilikom obračuna zahteva za solventnost po novom regulatornom okviru, uslediće značajne promene u strukturi bilansa stanja, kako na strani aktive tako i u okviru obaveza, odnosno kapitala. Bitno je istaći da se radi o bilansu isključivo za svrhe obračuna racija solventnosti, dok na snazi ostaju regulatorni zahtevi i postojeći principi vrednovanja i evidentiranja za svrhu finansijskog izveštavanja. To može izazvati nedoumice, promenu apetita i poslovnih odluka kod niza subjekata zainteresovanih za poslovanje društava za osiguranje/reosiguranje. Proces diskontovanja, apstrahovanje nedospеле premije i troškova pribave u praksi prilikom obračuna značajno obaraju tehničke rezerve po Direktivi Solventnost II, što može biti signal pojedinim subjektima da postojeći proces finansijskog izveštavanja precenjuje stavku obaveza, odnosno potcenjuje ostvareni rezultat, i posledično dovede do selidbe kapitala. Međutim, to treba posmatrati isključivo kao proces obračuna raspoloživog kapitala za solventnost koji treba da paralelno isprati i odgovori značajno podignutim zahtevima u delu kapitala potrebnog za solventnost. Kao izazov, javiće se i tržišno konzistentno vrednovanje aktive i obaveza, naročito u uslovima ograničenog i plitkog tržišta. Novi okvir zahteva da se vrednovanje vrši po tržišnoj, fer vrednosti, a time se napušta koncept vrednovanja po novonabavnoj, amortizovanoj vrednosti ili sl. U cilju efikasnog upravljanja rizikom, na značaju će dobiti uspostavljanje ročne i valutne usklađenosti aktive i pasive,<sup>45</sup> čija će se uspešnost precizno kvantifikovati,

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<sup>44</sup> Do sada su se kao izazovi koji utiču na obračun i smisao obračuna pokazali: segmentacija osiguranja od nezgode i dobrovoljnog zdravstvenog osiguranja, u smislu izdvajanja osiguranja koja se odnosi na povrede na radu i lečenje radnika, zatim zajedničko posmatranje vrste osiguranja 08 Osiguranja imovine od požara i drugih opasnosti i heterogene vrste osiguranja 09 Ostala osiguranja imovine, posmatranje rentnih šteta, koje uglavnom potiču iz auto-odgovornosti, kao sastavnog dela osiguranja života i dr.

<sup>45</sup> H. Grundl, M. I. Dong, & J. Gal, „The evolution of insurer portfolio investment strategies for long-term investing“, *OECD Journal: Financial Market Trends*, 2016, str. 22–27.

umesto dosadašnjeg kvalitativnog cilja. Konačno, doći će do prekompozicije portfelja u pravcu napuštanja proizvoda sa garancijama na račun proizvoda kod kojih će se prava klijenata kretati u smeru promene tržišnih pokazatelja. Navedeno će iznedriti posebnu grupu profesionalaca koji će istovremeno morati da poznaju Direktivu, pravila upravljanja rizikom, karakteristike portfelja entiteta, efekat korelacije rizika. Oni će simultano da posmatraju obe strane bilansa stanja. Ta lica, ili čitave organizacije jedinice koje će obavljati tu funkciju, moraće da budu integrisana u gotovo sve poslovne procese društava za osiguranje. U fokusu će biti razvoj i zadržavanje takvih kadrova, ali i razvoj složenih IT rešenja koji će proces upravljanja rizikom učiniti ažurnijim i efikasnijim.

### **3. Visoki troškovi uvođenja i održavanja sistema i poslovnih procesa**

Iskustva zemalja koje su već prošle kroz proces uvođenja Direktive Solventnost II ukazuju na visoke troškove uvođenja i održavanja sistema, poslovnih procesa i kadrova koji treba da podrže izmenjenu regulativu. Ukoliko to već nisu učinili, entiteti će zbog znatno složenijih obračuna i značajno obimnijeg izveštavanja gotovo sigurno imati imperativ da uvedu savremene softvere za upravljanje rizicima i aktuarske obračune. Potreba poznavanja složenih procesa upravljanja rizikom i efekata niza segmenata poslovnih procesa na obe strane bilansa stanja iznedriće posebnu grupu profesionalaca koji će poznavati principe upravljanja rizikom, aktuarstvo, ali će odlučivati i o pitanjima visine i strukture portfelja, razvoja proizvoda, strukture investiranja i dr.<sup>46</sup> Izazov će predstavljati zadržavanje takvog kadra, kako zbog konkurencije unutar sektora osiguranja, tako i zbog tražnje IT sektora, kome će predmetni kadrovi trebati u cilju zadovoljenja povećane tražnje za sofisticiranim IT rešenjima za obračune, evidentiranja, praćenja i analize po savremenim evropskim standardima. Sve to će da rezultira rastom troškova, koji će se jednim delom kroz uvećanu premiju preliti na ugovarače usluga, odnosno korisnike. Povećanje stepena sigurnosti korisnika usluga, koju obezbeđuje novi regulatorni okvir, učiniće proizvode osiguranja kvalitetnijim, „elitnijim“, ali će to gotovo izvesno koštati kupca usluge.

Prilikom sagledavanja budućih izmena regulative, a imajući u vidu da se već nalazimo na visokim nivoima sigurnosti, nadležna zakonodavna tela treba da razmotre, kroz „cost benefit“ analizu, opravdanost marginalnog povećanja stepena sigurnosti na račun marginalnog troška. Pored primene načela proporcionalnosti na kome se zasniva Direktiva, a koja uvodi to da primenjene mere treba da odgovaraju prirodi rizika, tj. da se značajno manji utrošak resursa u ovom procesu očekuje od relativno manjih entiteta, nije retkost da upravo manja društva ne mogu da sprovedu proces harmonizacije zbog visokih troškova i da se likvidiraju. Primena internih

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<sup>46</sup> Allianz, „Izvešće o solventnosti i finansijskom stanju za 'Allianz Hrvatska' d.d. za poslovnu godinu 2022“, 2023, str. 17–45.

modela za obračun potrebnog kapitala za solventnost, koja treba da bolje odslikava riziko profil društva i gotovo po pravilu rezultira nižim kapitalnim zahtevom, jeste privilegija rezervisana samo za velike i bogate entitete, imajući u vidu složenost izgradnje i odobravanja ovakvih modela obračuna.<sup>47</sup>

#### **4. Izmene strukture portfelja društava za osiguranje**

Društva koja se bave pre svega poslovima životnih osiguranja snažno su motivisana da u cilju redukcije kapitalnih zahteva upravljaju strukturom svojih osiguravajućih portfelja. Okvir predviđa kapitalne povlastice za entitete koji svoje poslovanje zasnivaju na proizvodima u kojima nisu ugrađena visoka zagarantovana prava za korisnike usluga. Tradicionalni proizvodi osiguranja života sa štednom komponentom više su penalizovani iz aspekta rizika osiguranja i pre svega tržišnog rizika u odnosu na riziko proizvode i savremene unit linked proizvode. S obzirom na to da nemaju garanciju ili su garancije vrlo male, a da vrednost proizvoda direktno zavisi od vrednosti investicione jedinice, kod unit linked proizvoda gotovo celokupan rizik je transferisan na ugovarača usluge, a društvo za osiguranje je relaksirano u pogledu obaveza i kapitalnog zahteva. Tu povlasticu prepoznali su i intenzivno je koriste osiguravači u EU, gde je prodaja tradicionalnih proizvoda gotovo prestala ili se nude sa jako niskim garantovanim tehničkim kamatnim stopama. Koliko će taj proces uslediti i na domaćem tržištu osiguranja, zavisi i od mogućnosti da produbimo i aktiviramo tržište životnih osiguranja, čija je individualna prodaja značajno smanjena, dok ekspanziju beleže grupni riziko proizvodi koji se prodaju putem poslovnih banaka. Uspešnost osiguravača u delu kapitalnih zahteva zavisiće i od sposobnosti da postignu pravi balans proizvoda sa riziko komponentom i proizvoda sa štednom komponentom, kako bi se nivelisao i negirao uticaj stresa smrtnosti i stresa dugovečnosti. Konačno, očekuje se tendencija skraćanja ugovora, budući da širi vremenski horizont povećava potencijalni negativan uticaj na neto sopstvena sredstva usled stresova i time na kapitalni zahtev.<sup>48</sup>

#### **5. Osetljivost obračuna na varijacije u bezrizičnim kamatnim stopama**

U zavisnosti od kretanja bezrizičnih kamatnih stopa, entiteti iz godine u godinu mogu beležiti nestabilnosti u vrednostima obračunatih racija solventnosti. Problem može naročito biti izražen u slučaju pada kamatnih stopa, kada dolazi do

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<sup>47</sup> Dodatni pritisak stvaraju društva sa teritorija drugih članica EU, koje pod institutom „slobode pružanja usluga“ osnivaju svoje podružnice u novim zemljama članicama, zaoštravajući konkurenciju. To potvrđuje i iskustvo Hrvatske, u kojoj je došlo do nekoliko gašenja, odnosno pripajanja manjih društava nakon uvođenja Solventnosti II, upravo zbog visokih troškova i nemogućnosti da se izdrži konkurentna utakmica. Analogni proces može se očekivati i na našem tržištu po usvajanju tekovina Direktive i drugih zakonskih propisa EU.

<sup>48</sup> A. Clapis, M. Fruzzetti, A. Mapelli, A., „Effectiveness of capital light traditional products, and how they might evolve with the arrival of IFRS 17“, *Milliman White Paper*, January 2024, str. 1–10.

rasta vrednosti obaveza, aktive, ali i riziko margine, kao sastavnog dela tehničkih rezervi.<sup>49</sup> U makroekonomskim uslovima u kojima dolazi do pada stopa prinosa, naročito se može pokazati opterećujućom za društva za osiguranje stopa troška kapitala u obračunu riziko margine koja trenutno iznosi 6%, što je prilično visoko imajući u vidu tržišne kamatne stope, i ne može se ublažiti efektom diskontovanja bezrizičnim kamatnim stopama. Upravo to je i razlog što je aktuelna stopa troška kapitala predmet reforme odredaba Direktive. Pored postizanja ročne usklađenosti aktive i pasive, kao jedno od mogućih rešenja za ublažavanje volatilnosti racija solventnosti je i uvođenje fluktuirajuće stope troška kapitala, u zavisnosti od vrednosti i kretanja bezrizičnih stopa prinosa. U suprotnom, postoji rizik da pojedini entiteti koji su jedne godine ispunjavali zahteve u delu solventnosti usled kratkoročnih poremećaja na finansijskom tržištu padnu ispod zakonskih pragova i dođu pod mere regulatora. To može izazvati ciklični efekat gubitka poverenja javnosti i investitora, odnosno selidbe kapitala. Može se zaključiti da novi regulatorni okvir više odgovara makroekonomskom ambijentu sa višim i stabilnim kamatnim stopama,<sup>50</sup> čime se obezbeđuje viši nivo i kontinuitet dostignutih razmera solventnosti. Poseban izazov za naše tržište biće konstrukcija krive prinosa za dinare, u uslovima ograničene dubine i likvidnosti finansijskog tržišta. Budući da rokovi dospeća za državne obveznice imaju velike rupe, tj. nedostajuće ročnosti za pojedine godine dospeća, ovo će zahtevati značajnu interpolaciju, odnosno ekstrapolaciju u cilju konstrukcije krive prinosa, što povećava rizik odstupanja od objektivnih vrednosti, kao i značajne promene stopa iz godine u godinu.<sup>51</sup>

## 6. Uticaj mehanizma reosiguranja na potreban kapital za solventnost

Prema okviru Solventnost II, postoji višestruki i značajan uticaj zaključenih ugovora o reosiguranju na obračun solventnosti. Uticaj se pre svega manifestuje na module rizika osiguranja, gde efekat reosiguranja smanjuje rizik, odnosno na modul kreditnog rizika, gde reosiguravač u svojstvu druge ugovorne strane nosi svoju verovatnoću propasti i time doprinosi rastu rizika i ukupnog potrebnog solventnog kapitala. Kakav će biti neto efekat tih suprotstavljenih uticaja na obračun, zavisi od vrste reosiguravajućeg programa, kao i od kreditnog kvaliteta reosiguravača. Iskustva sa tržišta EU pokazuju da se pozitivan efekat mehanizma reosiguranja ostvaruje sa reosiguravačima koji u najmanju ruku poseduju A kreditni rejting. Rezultati QIS 5

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<sup>49</sup> Jelena Kočović, Marija Koprivica, Blagoje Paunović, „Initial effects of Solvency II implementation in the European Union“, *Ekonomika preduzeća*, Vol. 65, br. 7-8, 2017, str. 436–452.

<sup>50</sup> F. Škunca, „Analiza ulaganja osiguratelja u Solvency II svijetu“, *Hrvatski časopis za osiguranje*, br. 1, 2019, str. 55-69.

<sup>51</sup> Jelena Kočović, Marija Koprivica, „Izvođenje krive prinosa za vrednovanje obaveza iz osiguranja u regulatornom okviru Solventnost II (Izvođenje krive prinosa za vrednovanje obaveza iz osiguranja u regulatornom okviru Solventnost II)“, *Ekonomске ideje i praksa*, br. 32, 2019, str. 7–24.

studije na tržištu EU su pokazali da zamena reosiguravača kreditnog rejtinga A sa reosiguravačem kreditnog rejtinga BB podiže verovatnoću bankrotstva za čak 23 puta, dok bi u slučaju da se zamena vrši sa reosiguravačem kreditnog rejtinga BBB dovela do rasta predmetne verovatnoće za 380%.<sup>52</sup> Prve kvantitativne studije uticaja sprovedene u našoj zemlji pokazale su da postoji značajno učešće modula kreditnog rizika u ukupnom riziku, za razliku od tržišta EU. Jedan od razloga za značajno učešće modula kreditnog rizika je specifičnost domaće regulacije procesa reosiguranja, broj i kreditni kvalitet domaćih društava za reosiguranje, odnosno intencija regulatora da kroz zabranu „look-through“ pristupa, tj. posmatranja kreditnog kvaliteta ino-reosiguravača, koji je suštinski nosilac transferisanog rizika, sagleda kapacitet potencijalnog problema u delu kreditnog rizika. Naime, Zakon o osiguranju Republike Srbije propisuje da se reosiguranje, osim u izuzetnim slučajevima, mora vršiti preko domaćeg društva za reosiguranje. U praksi to znači da zbog ograničenog kapaciteta za nošenje rizika domaćih reosiguravača, koji je čak ispod kapaciteta cedenata, domaći reosiguravač zadržava uglavnom mali deo rizika, dok se dominantni rizik transferiše u inostranstvo na jednog ili više reosiguravača. Postojeća regulacija u delu odredaba za reosiguranje ukoliko ostane na snazi u trenutku uvođenja Direktive Solventnost II može uticati na značajno veće učešće kreditnog rizika u ukupnom rizičnom profilu u odnosu na standarde tržišta EU, budući da će čak i u perspektivi na našem tržištu biti teško naći domaćeg reosiguravača kreditnog rejtinga A ili više, koji obezbeđuje pozitivan neto uticaj mehanizma reosiguranja. Neka od mogućih rešenja su liberalizacija odredaba u delu reosiguranja i dopuštanje mogućnosti direktnog reosiguranja u inostranstvu, mogućnost posmatranja boniteta ino-reosiguravača, ili reosiguranje putem podružnica stranih društava osnovanih na našoj teritoriji. Nesumnjivo se u ovom trenutku radi o sistemskom izazovu, čije će rešenje zavisiti od strateškog pravca razvoja koji opredeli regulator. Pojedinačna društva baviće se optimizacijom portfelja ugovora reosiguranja, odnosno izborom adekvatne kombinacije ovih ugovora, koji će istovremeno biti u skladu sa apetitima za rizik i obezbediti optimalan uticaj na pokazatelje solventnosti.

### **7. Tretman državnih obveznica denominovanih u evrima ili sa valutnom klauzulom**

U želji da ostvare valutnu usklađenost aktive i pasive, osiguravači, a s obzirom na to da je značajan iznos obaveza vezan za valutu evra, veliki deo svojih sredstava plasiraju u državne obveznice u evrima ili s valutnom klauzulom vezanom za evro. To je specifičnost i odlika poslovanja naročito društava van evrozone, pogotovo sa područja Balkana, na kome je stanovništvo naviklo i preferira da svoja prava vezuje za vrednost strane valute, čime se u krajnjoj instanci dovodi u pitanje primenljivost

<sup>52</sup> SCOR, „Life (re)insurance under Solvency II“, April 2012.

pojedinih odredaba okvira Solventnost II u ovim zemljama, budući da zbog strogih kapitalnih zahteva društva sa ovog područja dovode u nepovoljniji položaj. Prema originalnom smislu nove regulative koja se odnosi na solventnost državne obveznice denominovane u evrima ili sa valutnom klauzulom imaju nepovoljniji tretman od državnih obveznica u domicilnoj valuti i izjednačavaju se s tretmanom koji imaju korporativne obveznice kod kojih se posmatra kreditni rejting. Kod državnih obveznica to implicira da se koristi kreditni rejting države, što može predstavljati problem kod država koje nemaju visok kreditni rejting, što bi važilo i za Republiku Srbiju koja trenutno ima kreditni rejting BB+. Ilustracije radi, na primeru Hrvatske koja je imala kreditni rejting BB, to je značilo da je na svakih 100 novčanih jedinica ulaganja u državne obveznice u evrima, odnosno sa valutnom klauzulom vezanom za evro, bilo potrebno da se izdvoje 73 jedinice dodatnog kapitala, što predstavlja izuzetno visok kapitalni zahtev. Kako bi se ublažio efekat navedenih mera na kapitalni zahtev, Republika Hrvatska je sa EU dogovorila da se u prelaznom razdoblju od 2015. do 2019. primena predmetnog kapitalnog zahteva postepeno podiže sa 0% na 100% u 2019. godini.<sup>53</sup> Budući da je smisao ulaganja u obveznice vezane za valutu evra želja da se postigne valutna usklađenost s obavezama, a ne špekulacija, zahtev da ovakav oblik ulaganja ima preferencijalni tretman u potpunosti je opravdan. Budući da domaća društva za osiguranje značajan deo svoje investicione aktive drže u državnim obveznicama, prema poslednjim podacima, 57,4% sredstava tehničkih rezervi neživotnih osiguranja, odnosno čak 89,5% sredstava tehničkih rezervi životnih osiguranja,<sup>54</sup> od čega je značajan deo vezan za evro – od velikog je značaja na koji način ćemo dogovoriti primenu odredaba Direktive Solventnost II, odnosno da kroz pregovore nastojimo da analogno putu harmonizacije koji je prošla Hrvatska, dogovorimo prelazni period za primenu propisa koji regulišu tretman državnih obveznica vezanih za stranu valutu.

## V. Zaključak

Spoznaja da društva za osiguranje kao finansijske institucije koje se bave preuzimanjem rizika nisu izložene isključivo riziku osiguranja, već da na njihovo poslovanje i solventnost utiču, čak i dominantnije, tržišni rizici, kreditni rizici, odnosno operativni rizici, uticala je na to da se počev od 1. 1. 2016. godine na tržištu EU primenjuje Direktiva Solventnost II, koja uvodi nova pravila za obračun solventnosti društava za osiguranje/reosiguranje. Tom direktivom zamenjuje se dotadašnji skup pravila koji se razvijao počev od sedamdesetih godina prošlog veka, oličeni u ukupno 14 direktiva, koje su zajedno činile okvir poznat pod nazivom Solventnost I. Pored sveobuhvatnijeg sagledavanja ukupnog rizika, novi regulatorni okvir uvodi njegovu

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<sup>53</sup> Tatjana Račić Žlibar, „Solventnost II je i sklizak pod“, *Svijet osiguranja*, br. 7, 2015.

<sup>54</sup> Народна банка Србије, „Сектор осигурања у Републици Србији, Извештај за треће тромесечје 2023.“



individualizaciju na nivou entiteta, vezujući ga za niz parametara koji karakterišu njegovo poslovanje i time stvarajući motiv za upravljanje rizikom u cilju smanjenja ukupnog rizičnog profila i posledično kapitalnog zahteva. Naime, umesto posmatranja premije i šteta, odnosno matematičke rezerve kod životnih osiguranja kao mere rizika, novi okvir posmatra niz činilaca, kao što su: segmentacija poslovanja, trajanje ugovora, dinamika dospeća premije osiguranja, sume osiguranja, struktura ulaganja, nivo kreditnog kvaliteta poverilaca, uticaj stres testova na rezultat, interne statistike i iskustvene realizacije parametara od značaja za obračun, i drugo. To rezultira time da dva društva za osiguranje koja beleže gotovo identičan obim poslovanja meren premijom osiguranja, za razliku od prethodnog zakonodavnog okvira, mogu imati znatno različite nivoe solventnosti, a zasnovano na uspešnosti upravljanja rizikom, kroz efikasno korišćenje elemenata koje preferencijalno posmatra novi okvir, odnosno efekat diverzifikacije. U fokusu nove regulative stoji cilj unapređenja zaštite korisnika usluge osiguranja u najširem smislu.

Prelazak društava u EU na Solventnost II praćen je značajnim troškovima implementacije i održavanja. Novu regulativu prate značajno složeniji obračuni, kao i zahtevi u delu kvantiteta i kvaliteta izveštavanja. To zahteva velika ulaganja u IT sisteme, razvoj novih poslovnih procesa, i izgradnju i zadržavanje kadrova. I pored primene načela proporcionalnosti, koje definiše da obim napora na primeni zakonskih odredaba treba da odgovara volumenu i prirodi rizika, uz obavezu obezbeđenja minimuma standarda, došlo je do prekompozicije tržišta, odnosno spajanja i pripajanja manjih entiteta finansijski moćnijima. Racio solventnosti je zadržan na visokom nivou i nakon prelaska na novu regulativu, pa tako velika većina entiteta beleži racio solventnosti iznad 150%, a od toga značajan broj je iznad 200%. Najviše nivoe racija solventnosti beleže društva u Nemačkoj, gde je zabeležena medijana racija od 299%, dok je ovaj pokazatelj najniži na Islandu, gde je na nivou od 157%. Zemlje bivše Jugoslavije, danas članice EU, Slovenija i Hrvatska, ostvarile su medijanu racija od respektivno 229% odnosno 170%. Koliko je prelazak sa okvira Solventnost I na Solventnost II u značajnoj meri promenio način merenja rizika, proširenjem opsega posmatranja sa isključivo rizika osiguranja i na druge module rizika, svedoči podatak da je prema rezultatima za sve zemlje članice EU tržišni rizik, koji se po prethodnoj regulativi nije ni merio, pojedinačno najdominantnija stavka, modul rizika, u ukupno potrebnom osnovnom kapitalu za solventnost sa učešćem od 56% kod društava koja se bave neživotnim osiguranjem, do preko 70% kod kompozitnih društava, odnosno društava za reosiguranje. Ono što predstoji tržištu osiguranja EU je reforma Direktive Solventnost II. Već prilikom uvođenja Direktive plan je bio da se nakon pet godina i sagledavanja efekata njene primene pristupi reviziji pojedinih segmenata. Taj proces je odložen i usporen usled globalne pandemije, ali očekuje se da tokom 2025. godine reformisane odredbe stupe na snagu. Značajna pažnja u reformi, između ostalog, biće posvećena smanjenju troška kapitala za obračun

marginе rizika, konstrukciji krive prinosa, preferencijalnom tretmanu dugoročnih kapitalnih ulaganja koja pokrivaju dugoročne obaveze, zatim prilagođavanju za volatilitnost i sagledavanju efekta klimatskih promena kroz ORSA izveštaj.

Zakonski okvir koji reguliše delatnost osiguranja u Republici Srbiji, a čija je baza Zakon o osiguranju, predstavlja hibridni sistem koji u sebi sadrži i implementira većim delom odredbe okvira Solventnost I, ali jednim delom, pre svega u segmentu kvalitativnih zahteva, uvodi i zahteve Direktive Solventnost II, pa se kolokvijalno često navodi da je kod nas na snazi režim Solventnosti 1,5. Proces uvođenja Solventnosti II u našoj zemlji, čiji je krajnji rok za primenu prijem zemlje u EU, uokviren je i odvija se prema dokumentu „Strategija za implementaciju Solventnosti II u Republici Srbiji“, koju je donela Narodna banka Srbije. Tržište osiguranja Republike Srbije uspešno je prošlo do sada predviđene faze, dok se još uvek odvijaju kvantitativne studije uticaja, koje regulatoru i društvima za osiguranje/reosiguranje treba da ukažu na obim i vrstu zahteva nove regulative, kao i na izazove koje nosi harmonizacija, kako bi se blagovremeno prilagodili. Poslednja faza Strategije odnosi se na usklađivanje zakona, ali ono što je vrlo bitno u tom procesu, a naučeno iz iskustva zemalja koje su prošle kroz harmonizaciju, jeste imperativ pregovaranja postepene, fazne primene pojedinih odredaba novog regulatornog okvira.

Racio solventnosti na tržištu osiguranja Srbije, meren odnosom raspoložive i zahtevane marginе solventnosti prema poslednjim podacima, obračunat prema okviru Solventnost I, iznosi 209,70%. To se smatra pokazateljem visoko kapitalizovanog sektora, ali prve kvantitativne studije pokazale su da će doći do pada ovog racija prema novom zakonodavnom standardu za obračun solventnosti, ali da će se zadržati u proseku na zadovoljavajućem nivou. Kako bi se domaća delatnost osiguranja adekvatno pripremila za potpuno usvajanje pravnih tekovina EU, a koje nisu isključivo sadržane u Direktivi Solventnost II, već se odnose i na IDD, GDPR, MSFI, odnosno slobodu pružanja usluga u svim članicama sistema, država, regulator i društva za osiguranje zajednički, sinhronizovano moraju raditi na jačanju sektora. To podrazumeva jačanje entiteta ne samo do nivoa koji će obezbediti ispunjenje minimalnih zahteva, već u meri koja će omogućiti da izdrže intenzivirani konkurentski pritisak. Preduslov za to je rešavanje niza sistemskih izazova: tretman državnih obveznica denominovanih u evrima ili sa valutnom klauzulom, optimizacija mehanizma reosiguranja, prilagođavanje poslovanja na način koji omogućava segmentaciju u linije poslovanja prema novoj regulativi i jasno određivanje granica ugovora, izmena strukture portfelja na način povećanja učešća proizvoda sa preferencijalnim tretmanom i maksimiziranje efekta diverzifikacije, kao i niz drugih procesa.

Direktiva Solventnost II propisuje jasna pravila. Period koji nam je ostavljen za implementaciju, a koji je znatno duži od perioda koji su imale druge zemlje, pre svega pojedine zemlje iz okruženja koje su na sličnom nivou privrednog razvoja, treba iskoristiti efikasno i baštiniti iskustva koja su predmetne zemlje imale.

Uspešnost tržišta osiguranja Republike Srbije u bliskoj budućnosti zavisice od toga koliko se uspešno u godinama koje dolaze prilagodimo zahtevima dolazeće regulative, odnosno rešimo navedene sistemske izazove.

### **Literatura**

- Allianz, „Izvešće o solventnosti i finansijskom stanju za Allianz Hrvatska d.d. za poslovnu godinu 2022.“, 2023, str. 17–45.
- Bernardino, G., „Keynote speech: 2020 Solvency II review: Opportunities and Challenges“, EIOPA, 2020.
- Borseli, A., „Nadzor sistema uprave u osiguravajućim grupama prema Solventnosti II“, *Moderno pravo osiguranja: tekuća pitanja i trendovi*, Palić, 2014, str. 28–43.
- Clapis, A., Fruzzetti, M., Mapelli, A., „Effectiveness of capital light traditional products, and how they might evolve with the arrival of IFRS 17“, *Milliman White Paper*, 2024, str. 1–10.
- Čolović, V., „Primena projekta Solventnost II i mere koje su predviđene u Zakonu o osiguranju Srbije u slučaju neprimene pravila o upravljanju rizikom“, Zlatibor, 2013, str. 28–43.
- Čolović, V., *Osiguravajuća društva, Zakonodavstvo Srbije, pravo EU, uporedno pravo*, Institut za uporedno pravo, Beograd, 2010
- Čolović, V., „Uticaj primene projekta Solventnost II na osiguravajuća društva u Srbiji“, *Zbornik radova Harmonizacija zakonodavstva Republike Srbije sa pravom Evropske unije (II)*, Institut za međunarodnu politiku i privredu, Institut za uporedno pravo, Hans Zajdel Fondacija, Beograd 2012.
- *Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II)*, OJ L 335, p. 1–155.
- Dreher, M., *Treaties on Solvency II*, Springer Verlag, Berlin, 2015
- EIOPA, „European Insurance Overview 2020“, str. 1–32.
- EIOPA, „Opinion on the 2020 review of Solvency II“, 2020, str. 14–99.
- EU, „Directive 2009/138/EC of the European Parliament and of the Council on taking-up and pursuit of the business of Insurance and Reinsurance: Solvency II“, 2009.
- Ilić, M., *Uticaj primene Direktive Evropske unije Solventnost II na sektor osiguranja u Srbiji*, doktorska disertacija, Niš, 2014
- Gatzert, N., Martin, M., „Quantifying Credit and Market Risk under Solvency II: Standard Approach versus Internal Model“, 2012, str. 5–21.
- Grundl, H., Dong, M. I., & Gal, J., „The evolution of insurer portfolio investment strategies for long-term investing“, *OECD Journal: Financial Market Trends*, 2016, str. 1–55.

- HANFA, „Makroprudencijalni skener rizik“, 2020.
- Insurance Europe, „Solvency II Review and Insurance Recovery & Resolution Directive“, 2022, str. 1–8.
- Jauković, L., Kaščeljan, V., „Nova regulativa solventnosti osiguravajućih kompanija u EU – Projekta Solvenost II“, *Montenegrin Journal of Economics*, No. 5/2007, str. 77–84.
- Kočović, J., Koprivica, M., „Izvođenje krive prinosa za vrednovanje obaveza iz osiguranja u regulatornom okviru Solventnost II (Izvođenje krive prinosa za vrednovanje obaveza iz osiguranja u regulatornom okviru Solventnost II)“, *Ekonomске ideje i praksa*, Br. 32, 2019, str. 7–24.
- Kočović, J., Koprivica, M., Paunović, B., „Prvi efekti primene Solventnosti II u zemljama Evropske unije“, *Ekonomika preduzeća*, Vol. 65, br. 7-8, 2017, str. 436–452.
- Kordanuli, B., „Značaj regulatornog okvira Solventnost II na poslovanje društava za osiguranje u Republici Srbiji“, doktorski rad, Univerzitet Singidunum, Beograd, 2017.
- Manning, K., Comerford, E., „Investment strategy under Solvency II“, Milliman research report, 2018.
- Marano, P., „Nova nadzorna paradigma: kultura nošenja rizika i etički kodeks“, *Pravo osiguranja, uprava i transparentnost – osnove pravne sigurnosti*, Palić, 2015
- Marly, P. G., Ruol V., *Droit des entreprises d'assurance*, RB édition, Paris, 2011
- Milliman, „EIOPA Consultation Paper on the Opinion on the 2020 review of Solvency II: Standard Formula Solvency Capital Requirement“, 2019.
- Narodna banka Srbije, „Odluka o adekvatnosti kapitala društva za osiguranje/reosiguranje“, *Sl. glasnik* br. 51/2015.
- Narodna banka Srbije, „Odluka o sistemu upravljanja u društvu za osiguranje/reosiguranje“, *Sl. glasnik* br. 51/2015, 29/2018, 84/2020 i 94/2022.
- Narodna banka Srbije, „Okvir za sprovođenje treće kvantitativne studije uticaja zahteva Solventnosti 2 na Sektor osiguranja u Republici Srbiji“, 2023.
- Narodna banka Srbije, „Strategija za implementaciju Solventnosti II u Republici Srbiji“, 2021.
- Narodna banka Srbije, „Zakon o osiguranju“, *Sl. glasnik*, br. 139/2014 i 44/2021.
- Njegomir, V., „Solvency II direktiva i njen uticaj na upravljanje rizikom u osiguravajućim društvima“, *Finansije*, Ministarstvo finansija Republike Srbije, 2009, str. 183–202.
- Pavlović, B., „Koji je rizik najveći za osiguravače?“, *Svet osiguranja*, 2019.
- Petrović Tomić, N., *Pravo osiguranja, Sistem, Knjiga I*, Službeni glasnik, Beograd, 2019.

- Petrović Tomić, N., „Usklađenost poslovanja sa ESG standardima – osnove održivog poslovanja“, u V. Radović (ured.), *Usklađivanje poslovnog prava Srbije sa pravom EU*, Pravni fakultet u Beogradu, Beograd 2023, 69-95.
- Petrović Tomić, N., *Osnove prava osiguranja*, Drugo, dopunjeno izdanje, Pravni fakultet Univerziteta u Beogradu, Beograd 2023.
- Rae, R. A., Barrett, A., Brooks, D., Chotai, M. A., Pelkiewicz, J., Wang, C., „A review of Solvency II: Has it met its objectives?“, 2017, str. 1–72.
- SCOR, „Life (re)insurance under Solvency II“, 2012.
- SCOR, „Reinsurance under Solvency II“, 2022, str. 15–36.
- Stojković, Lj., „Pravni aspekti upravljanja rizikom i sistem internih kontrola kao integralni deo korporativnog upravljanja u društvu za osiguranje“, *Evropska revija za pravo osiguranja*, Br. 3/2013, str. 46-53.
- Stojković, Lj., „Pravni aspekti sistema upravljanja u društvu za osiguranje i princip srazmernosti prema Direktivi o solventnosti II“, U: Srazmernost i pravna izvesnost u pravu osiguranja. Palić: Udruženje za pravo osiguranja Srbije, 2017, pp. 279-293.
- Šipovac, Z., „Solventnost II u Republici Srbiji – Realno stanje u teoriji i praksi“, Zbornik radova SORS, 2017, str. 235-249.
- Škunca, F., „Analiza ulaganja osiguratelja u Solvency II svijetu“, *Hrvatski časopis za osiguranje*, str. 55-69.
- Tošić, I., „Izazovi implementacije Direktive Solventnost II u Srbiji“, *Pravo i privreda*, br. 7-9/2017, str. 526-541.
- Tošić I., „Nadzor osiguranja – Direktiva Solventnost II“, *Strani pravni život*, br. 2/2017, 147-162.
- Tošić, I., „Uticaj direktive Solventnost II na sektor osiguranja u Evropi“, *Godišnjak fakulteta pravnih nauka*, Banja Luka, 2017, str. 306-309.

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## **CHALLENGES FOR SERBIA'S INSURANCE MARKET ON THE PATH TO SOLVENCY II**

SCIENTIFIC PAPER

### **Abstract**

Insurance and reinsurance companies face a wider range of risks than just those associated with insurance itself. The experience of the European insurance market reveals that several solvency issues in insurance companies stem from risks not directly related to insurance, but rather from market-related factors such as counterparty problems or internal failures like poorly organized processes and employee errors. The realization that solvency, a crucial indicator in which the majority of stakeholders are interested, is influenced by a wide array of risks prompted the transition from Solvency I to Solvency II regulation. The primary focus of this process was to enhance the level of protection for the interests of insurance beneficiaries in the broadest sense. This paper highlights the key advantages of the new solvency calculation regulatory framework, particularly in terms of facilitating more comprehensive risk assessment and individualization. Under this framework, an entity's risk profile is no longer solely determined by factors such as the volume of insurance premiums, settled claims, and technical provisions. Instead, it is influenced by a multitude of factors including business segmentation, contract term, maturity of insurance premiums, sums insured, investment structure, creditworthiness of creditors, internal statistics and experiences, and risk correlation, among others. Additionally, this paper assesses the effects of the Solvency II Directive on the EU market, eight years since its implementation, highlighting both its successes and areas for improvement. Furthermore, it examines the comparative and gap analysis of regulatory frameworks between the Republic of Serbia and the EU market. Drawing on the experience of European countries that adopted Solvency II, this section identifies key areas that will pose challenges for Serbia's insurance market in harmonizing with the Directive's new

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Paper received on: 15.04.2024.  
Paper accepted on: 16.05.2024.

framework for calculating solvency capital requirements and solvency ratios. Given the significant lead time available for Solvency II implementation, the Serbian insurance sector should utilize this opportunity to address systemic challenges through a multi-pronged approach: gradual legal adjustments, quantitative impact studies, business optimization, learning on the experience of countries of regions that have already gone through the subject process, i.e. through development and transfer of knowledge.

**Keywords:** *solvency, risk modules, SCR, MCR, technical provisions, QIS studies.*

## **I. Introductory Considerations and Basic Principles of the Solvency II Framework**

The Solvency II Directive serves as the EU's legislative benchmark for conducting a thorough assessment of the risk profile of insurance/reinsurance undertakings and establishing solvency requirements.<sup>2</sup> This directive replaces a total of 14 directives from the Solvency I framework. Its primary aim is to offer enhanced protection to all insurance beneficiaries on a broader scale and to provide a clearer depiction of solvency to stakeholders involved in the operations of insurance/reinsurance undertakings.<sup>3</sup> This objective is realized through a comprehensive approach to risk measurement, which entails an expanded methodology for identifying and evaluating risks. Unlike the Solvency I framework, which predominantly focuses on insurance risk, Solvency II incorporates a broader spectrum of risks. Alongside insurance risk, encompassing non-life, life, and health insurance risk, Solvency II also encompasses counterparty risk, market risk, operational risk, and intangible asset risk, considering their interrelation.<sup>4</sup> Such determination, based on the *principle of assessing the individual risk profile of the insurance/reinsurance company*, is enabled and based on the deep vertical segmentation of the aforementioned risk modules into smaller risk submodules, whereby the overall risk profile, in addition to the already standard overall premium and technical provisions, which is observed by the earlier regulatory framework, is influenced by: business segmentation, duration of contracts, dynamics of maturity of insurance premiums, sums insured, investment structure, creditworthiness of creditors, impact of stress tests on the score, internal statistics and experiential realization of parameters of importance for calculation, parameterized calculation coefficients, risk correlation and other factors.<sup>5</sup> All this

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<sup>2</sup> Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), OJ L 335, pp. 1–155.

<sup>3</sup> The Directive was adopted in 2009, but full implementation in the EU market only began on January 1, 2016. This timeframe reflects the complexity of the Directive, the significant regulatory shift it represents, and the extensive adjustments required by insurance market participants.

<sup>4</sup> For more details on Solvency I see: Vladimir Čolović, *Osiguravajuća društva, Zakonodavstvo Srbije, pravo EU, uporedno pravo*, Institute of Comparative Law, Belgrade, 2010, pp. 201–202.

<sup>5</sup> Mirjana Ilić, *Uticaj primene Direktive Evropske unije Solventnost II na sektor osiguranja u Srbiji*, doctoral dissertation, Faculty of Economics of the University in Niš, Niš, 2014, 25–26.

results in insurance/reinsurance undertakings having the same or similar level of insurance premium and technical provisions being able to record materially significant differences in the required and achieved level of solvency. In addition to segmentation and individualization of risk assessment, the task set before the new Solvency II framework is a more adequate allocation of capital, i.e. improving supervision in the direction of group supervision.

Solvency II is based on three pillars:<sup>6</sup>

- 1) quantitative requirements;
- 2) qualitative requirements;
- 3) transparency.

Quantitative requirements imply marked-based valuation of assets and liabilities.<sup>7</sup> This implies that the assets are valued at the amount for which they could be exchanged between knowledgeable willing parties in an arm's length transaction or that liabilities shall be valued at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction.<sup>8</sup> As a basic valuation method that should provide a market-based valuation of assets and liabilities, an insurance/reinsurance undertaking should use quoted market prices for the same assets and liabilities, i.e. if they do not exist, then market prices for similar assets and liabilities can alternatively be used. Within the quantitative pillar, two tiers of capital requirements are established, Solvency Capital Requirement (SCR) and Minimum Capital Requirement (MCR).<sup>9</sup> Solvency capital requirement takes into account all risks and ensures that an insurance/reinsurance undertaking can withstand during one year a one-in-200-year event i.e. corresponds to a 99.5% confidence level over a one-year time horizon. The required solvency capital may be calculated using a standard model or alternatively, by applying an internal model developed by an entity whose approval to implement is given by the regulator as part of a complex validation procedure for that model. Minimum capital requirement ensures 85% confidence level over a one-year time horizon. For the purpose of calculating solvency capital, the Solvency II framework introduces principles for calculating assets, liabilities, and technical provisions. Technical provisions consist of a best estimate and a risk margin. This results in a different balance sheet structure, but only for solvency calculation purposes. International accounting standards are still used for financial reporting.

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<sup>6</sup> N. Petrović Tomic, *Pravo osiguranja, Sistem*, Book I, *Official Gazette*, Belgrade, 2019, pp. 278–280.

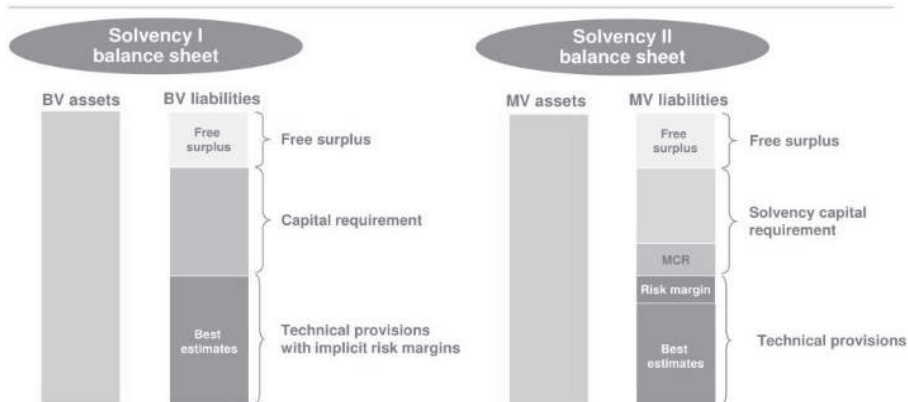
<sup>7</sup> Rae, R. A., Barrett, A., Brooks, D., Chotai, M. A., Pelkiewicz, J., Wang, C., „A review of Solvency II: Has it met its objectives?“, 2017, pp. 11–15.

<sup>8</sup> National Bank of Serbia, „Okvir za sprovođenje treće kvantitativne studije uticaja zahteva Solventnosti 2 na Sektor osiguranja u Republici Srbiji“, 2023, p. 7.

<sup>9</sup> Lidija Jauković, Vladimir Kaščeljan, „Nova regulativa solventnosti osiguravajućih kompanija u EU – Projekta Solvenost II“, *Montenegrin Journal of Economics*, No. 5/2007, p. 80.



**Figure 1 Structure of Balance Sheet according to Solvency I and Solvency II**



Source: Ernst & Young

Qualitative requirements, under the second pillar of Solvency II, prescribe the conditions that must be met by persons holding key functions in insurance/reinsurance companies.<sup>10</sup> Four key management functions are identified: internal audit, compliance, risk management and actuarial function.<sup>11</sup> Solvency II imposes regular own risk and solvency assessment (ORSA) as part of qualitative requirements, in order to anticipate overall solvency needs, detect any deviation of an undertaking's risk profile from SCR, and meet the requirements concerning capital adequacy and technical provisions. Particular attention is paid to outsourcing.

Aligned with the subject framework, transparency is achieved through two primary mechanisms: a set of regulations governing the provision of information to supervisory bodies, and rules dictating which information is made public and how it is disseminated.<sup>12</sup> Similar to practices under previous regulatory frameworks, companies are obliged to furnish regular reports and conduct extraordinary reporting upon request by supervisory bodies. However, there has been a notable expansion in the scope of qualitative data of interest to supervisors, beyond just quantitative data. A novel requirement is the publication of the Solvency and Financial Condition Report (SFCR). Group supervision receives particular emphasis, treating the group as a singular entity. This necessitated the establishment of specific rules regarding responsibilities, coordination, and data exchange among supervisory authorities.

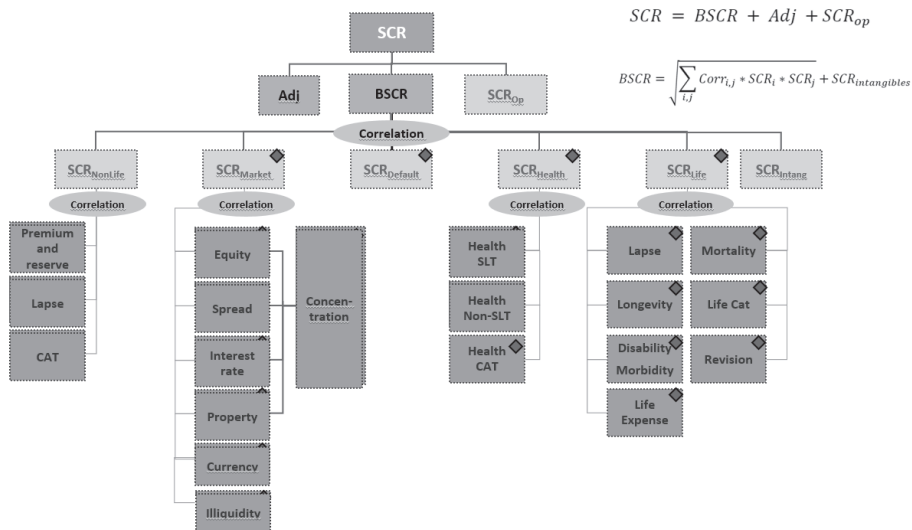
<sup>10</sup> A. Borseli, „Nadzor sistema uprave u osiguravajućim grupama prema Solventnosti II“, *Modern Insurance Law: Current Trends and Issues*, Palić, 2014, pp. 28–43.

<sup>11</sup> Ljiljana Stojković, „Pravni aspekti upravljanja rizikom i sistem internih kontrola kao integralni deo korporativnog upravljanja u društvu za osiguranje“, *European Insurance Law Review*, no. 3/2013, p. 138.

<sup>12</sup> M. Dreher, *Treaties on Solvency II*, Springer Verlag, Berlin, 2015, pp. 345–424.

The key advantage of the Solvency II framework, and conversely a weakness of the previous solvency assessment framework that the new directive aimed to address, is the *comprehensive risk assessment*. This includes the implementation of interdependencies between risks and the individualization of an entity's risk profile based on portfolio characteristics at a granular level of risk-relevant parameters.<sup>13</sup>

**Figure 2. Risk Module Diagram according to the Standard Formula**



Source: EIOPA

In contrast to the directives governed by Solvency I, the Solvency II Directive goes beyond assessing insurance risks solely through simplified methods predominantly based on premiums and claims. Instead, it undertakes a more thorough segmentation and introduces new risk modules. These modules include market risk, counterparty risk, operational risk, and the risk associated with intangible assets.<sup>14</sup> Insurance risk itself is segmented into three modules: non-life insurance risk, life insurance risk, and health insurance risk. To calculate this risk, knowledge of not only premiums and damages but also their structure, maturity, and the impact of insurance termination (such as catastrophe losses) is essential, along with other parameters crucial for equity loss calculation. A fundamental component of Solvency II calculations relies on correlation matrices between risk modules and submodules. These matrices serve

<sup>13</sup> Kordanuli, B., „Značaj regulatornog okvira Solventnost II na poslovanje društava za osiguranje u Republici Srbiji“, 2017, pp. 67–76.

<sup>14</sup> P. G. Marly, V. Ruol, *Droit des entreprises d'assurance*, RB édition, Paris, 2011, 201.

to assess and incorporate the fact that not all risks will materialize simultaneously. The activation of one module or submodule of risk influences the probability of occurrence of other risk modules and submodules. In practice, this translates into a diversification effect, resulting in the total solvency capital requirement being lower than the sum of the capital required by all risk modules.

At the core of Solvency II's objectives lies the overarching aim of providing *enhanced protection to policyholders on a broader scale*.<sup>15</sup> The insurance industry operates on the premise of selling insurance services upfront, with a commitment to promptly and adequately fulfill policyholders' rights in the event of an occurrence. This assurance ultimately rests on the solvency of insurance/reinsurance companies, underscoring the necessity for comprehensive solvency assessment. Beyond creditors, investors with capital ownership also have a vested interest in solvency, as their stakes are directly tied to the entity's ability to meet long-term obligations. The multifaceted goals outlined by the directive, alongside its implementation tools, work collectively to bolster protection for insurance beneficiaries and offer a clearer understanding of the guarantees provided by the entity. Modernizing insurance supervision stands as a pivotal goal in support of the overarching objective of safeguarding policyholder interests. This entails a shift in focus from merely observing quantitative indicators to assessing qualitative aspects such as operational practices, risk profiles, and the quality of risk management. Additionally, efforts are made towards harmonizing supervision across the EU and treating groups as single supervisory entities.<sup>16</sup> The framework also aims to incentivize insurance/reinsurance companies to effectively manage risk, as the required solvency capital is directly contingent upon the efficiency of this process. This, in turn, is expected to foster a more rational and efficient allocation of limited capital resources. The final objective aims to enhance the competitiveness of EU insurance/reinsurance companies in the global market, with success hinging on the realization of the aforementioned goals.<sup>17</sup>

The upcoming process of harmonization with the *acquis communautaire*, including the Solvency II Directive, presents a challenge for countries aspiring to join the European Union. While it may involve additional costs and require adjustments

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<sup>15</sup> Iva Tošić, „Izazovi u implementaciji Direktive Solventnost II u Srbiji“, *Law and Economy*, no. 7-9/2017, 527.

<sup>16</sup> P. Marano, „Nova nadzorna paradigma: kultura nošenja rizika i etički kodeks“, *Insurance Law, Governance and Transparency – Basics of the Legal Certainty*, Palić, 2015, pp. 171–175.

<sup>17</sup> The fundamental tool for achieving the set goals is market-consistent valuation of assets and liabilities. This approach abandons the concept of valuation based on purchase cost and depreciated value, which relies on static parameters relevant for calculation at the time the contract was signed. It replaces this concept with market valuation based on the current value of relevant parameters. Here, assets and liabilities are worth what the market estimates them to be worth. Finally, stress tests are introduced to assess the potential loss of equity capital due to negative deviations in certain parameters. These tests help determine the additional capital needed to absorb these losses and ensure fulfillment of obligations and business continuity.

to existing regulations, it should not be seen as a dismantling of current benefits. Instead, it is an **opportunity to build a new legislative infrastructure that fosters long-term stability for all market participants, while serving the general public interest.** Insurance and reinsurance companies should be proactive in this harmonization process. By identifying and capitalizing on the opportunities it presents, they can be the first to adapt their business models, risk profiles, and capital allocation to better align with the EU standards. The process of harmonization is transparent and inevitable. As shown by the experiences of EU countries, it will likely lead to changes in product portfolios, investment strategies, market structure, company positioning, and capital allocation.

## **II. Solvency II Development and Results of the Application in the EU Market**

The forerunner of the Solvency II Directive, the Solvency I regime, represented through 14 directives, has been developing since the early 1970s. During this period, it was observed that the insolvency of insurance companies in more than half of recorded cases occurred for reasons not directly related to insurance risks. Between 1996 and 2004, 76 insurance companies in the EU were closed due to solvency problems, and several others faced solvency difficulties that were subsequently remedied.<sup>18</sup> The shortcomings of this system became particularly evident during the 2008 financial crisis. It became clear that the existing risk assessment model was not sufficiently precise and sensitive to the risk of individual entities. Specifically, it did not include essential components of risk: market risk, counterparty risk, and operational risk.<sup>19</sup> This significantly hindered the implementation of prompt and adequate supervisory interventions,<sup>20</sup> and limited the optimal allocation of investor capital. However, the need for a new risk assessment framework was recognized as early as the beginning of the 21st century. It was noted that national regulations within EU countries had significant freedom in shaping solvency assessment rules, generating unequal conditions for the operations of entities from different national systems in the EU single market. The main objective at that point was the harmonization and definition of uniform rules for the operations of insurance companies in the market of the European Communities. It took almost fifteen years to build a new system, which began to function on January 1, 2016.<sup>21</sup>

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<sup>18</sup> V. Čolović, „Primena projekta Solventnost II i mere koje su predviđene u Zakonu o osiguranju Srbije u slučaju neprimene pravila o upravljanju rizikom“, Zlatibor, 2013.

<sup>19</sup> N. Petrović Tomić, *Pravo osiguranja, Sistem*, 2019, pp. 277–278.

<sup>20</sup> V. Čolović, „Uticaj primene projekta Solventnost II na osiguravajuća društva u Srbiji“, Zbornik radova *Harmonizacija zakonodavstva Republike Srbije sa pravom Evropske unije (II)*, Institute of International Politics and Economics, Institute of Comparative Law, Hanns Seidel Foundation, Belgrade 2012., pp. 368–369

<sup>21</sup> The complexity of the Solvency II Directive is evident from the extensive preparatory work undertaken. As many as six quantitative impact studies were conducted during this period. These studies aimed to

Despite the Directive taking effect in early 2016, the extensive changes it entails, coupled with anticipated financial and infrastructural challenges in promptly adjusting to the new framework, necessitate a transitional period. This period allows insurance and reinsurance companies the opportunity to gradually realign their operations in specific segments:<sup>22</sup>

- measures for the valuation of technical provisions allow a gradual transition to a fully market-consistent regime over 16 years. This applies exclusively to contracts concluded before January 1, 2016. The measures consist of two options: calculation of technical provisions using discount rates under Solvency I or calculation of technical provisions under the provisions of this Framework;
- tolerance for entities breaching the Solvency Capital Requirement within the first two years;
- grandfathering of existing hybrid own-fund items that are eligible under Solvency I, making it easier to meet the new capital requirements and giving the industry 10 years to adapt the composition of its capital to Solvency II standards;
- longer deadlines to report quarterly and annual information to supervisors and to disclose reports to the public, decreasing gradually from 20 weeks to 14 weeks after the close of the reporting period over the first 3 financial years.

The one-off net cost of implementing Solvency II for all insurance/reinsurance undertakings has been assessed to be around EUR 3 billion to EUR 4 billion. In addition, the aggregate available surplus (free own funds above the capital requirements of each insurer) is almost identical to that before the introduction of the new directive i.e. the situation under Solvency I. However, the distribution of capital requirements across entities led to a more efficient allocation of capital.<sup>23</sup>

According to the latest data, the median SCR ratio, as a ratio of available and required solvency capital, in the EU market is over 215%, while as many as 75% of entities record this ratio above 160%.<sup>24</sup> In terms of entity type, the distribution of SCR ratio is similar, with companies dealing exclusively with life insurance having a median solvency rate of 233%, while composite companies, non-life insurance companies, and reinsurance companies record medians of 223%, 219% and 217%, respectively.

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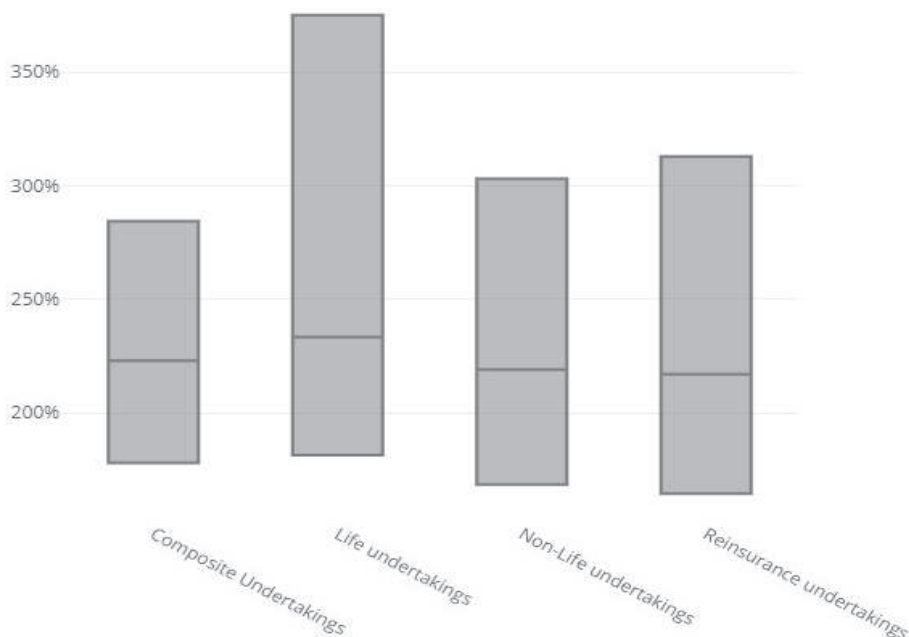
assess the effects of implementing the new directive and facilitate its calibration. In other words, they provided insurance/reinsurance undertakings with an opportunity to prepare resources for adapting their businesses to the new legislative framework. Following this intensive work, the Solvency II Directive was adopted in November 2009.

<sup>22</sup> Iva Tošić, „Nadzor osiguranja – Direktiva Solventnost II“, *Foreign Legal Life*, no. 2/2017, pp. 147–162.

<sup>23</sup> Solvency II Overview (europa.eu)

<sup>24</sup> European Insurance Overview report 2023 - European Union (europa.eu)

**Figure 3 SCR Ratio, Distribution by Type of Undertaking on EU and EEC Market<sup>25</sup>**



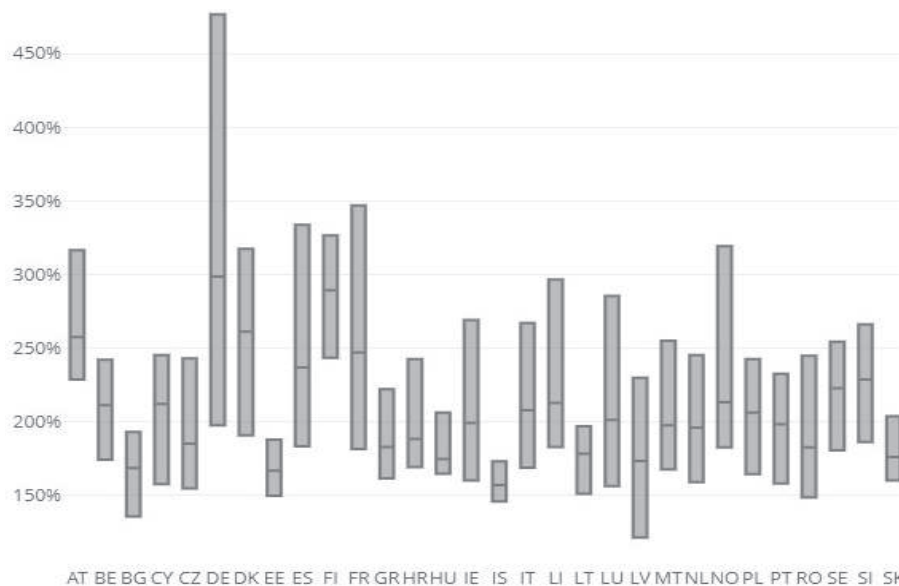
Source: EIOPA, Insurance Overview Report 2023.

Looking across EU member states, German companies boast the highest solvency ratio medians, reaching 299%. Conversely, Iceland has the lowest median at 157%. Among former Yugoslav republics that are now EU members, Slovenia and Croatia achieved medians of 229% and 170%, respectively. Our neighboring countries, Romania, Hungary, and Bulgaria, have solvency ratios of 183%, 175%, and 169%, respectively. Considering their market structure, insurance development stage, and overall economic progress, these solvency ratios should be achievable targets for our own market after implementing the Solvency II Directive. However, this is significantly lower than Serbia's current solvency levels under Solvency I. According to the latest data, the overall market solvency ratio for companies primarily engaged in non-life insurance is 206.4%. For companies mainly focused on life insurance, it is 210.6%, and for reinsurance companies, it is 231.1%.<sup>26</sup>

<sup>25</sup> In addition to EU member states, the study also includes Iceland, Liechtenstein and Norway. Note refers to Figures 3, 4, 5 and 6.

<sup>26</sup> National Bank of Serbia, Insurance Sector in the Republic of Serbia, Report for 2022.

**Figure 4 SCR Ratio, Distribution by EU and EEA Member States**



Source: EIOPA, *Insurance Overview Report 2023*.

The significant shift in risk identification, assessment, and management from Solvency I to Solvency II is evident. Notably, under Solvency II, market risk, which was not even measured under the previous regulation, has become the single largest component of the total required solvency capital across all EU member states.<sup>27</sup> Market risk participation ranges from 56% for non-life insurance undertakings to over 70% for composite and reinsurance companies. Conversely, insurance risk, encompassing life, non-life, and health categories, absorbs 54% of the required solvency capital for composite companies. This figure stands at 55% for life insurers, 64% for non-life insurers, and 42% for reinsurance undertakings.

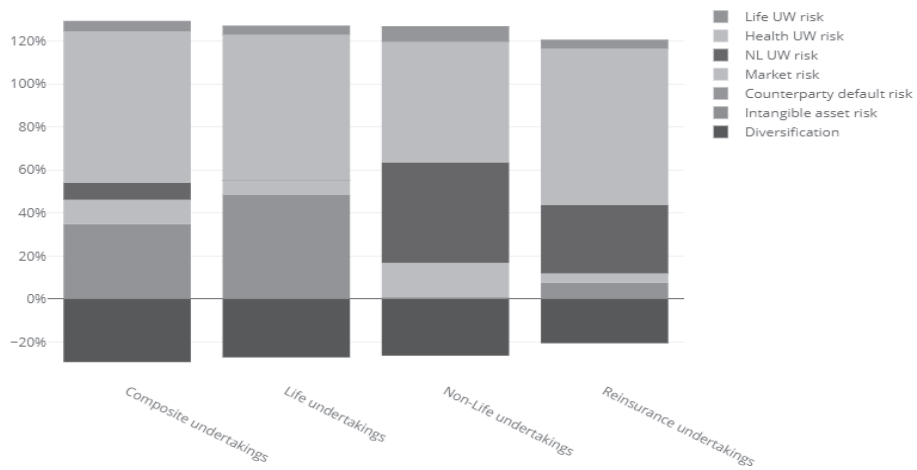
The correlation effect, or the full or partial mutual exclusion of risks, is another significant factor. It reduces the total required solvency capital compared to the sum of capital needed for each individual risk sub-module. The impact of this phenomenon varies between -20% and -30% on the required solvency capital, depending on the type of entity.

In contrast to Serbia and the initial impact studies that indicated its material significance, counterparty risk does not hold such a prominent role in the EU market.

<sup>27</sup> N. Gatzert, M. Martin, „Quantifying Credit and Market Risk under Solvency II: Standard Approach versus Internal Model”, 2012, pp. 5–21.

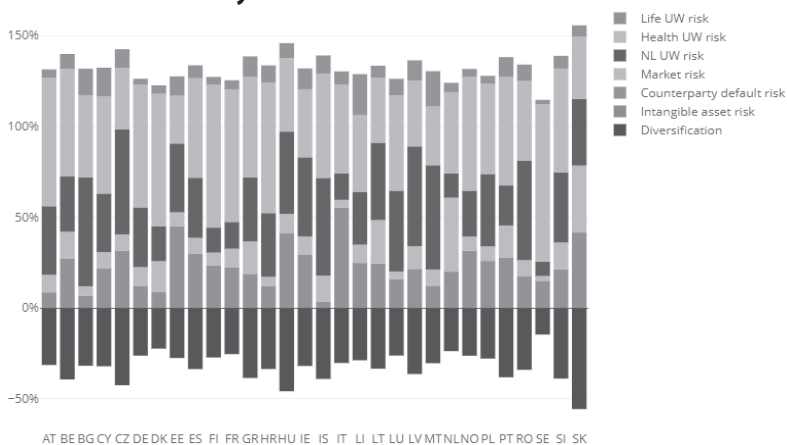
Its share in the required solvency capital ranges from 4% to 7%, depending on the specific insurance lines undertaken by the entity.<sup>28</sup>

**Figure 5 BSCR Structure according to Standard Formula**



Source: EIOPA, Insurance Overview Report 2023.

**Figure 6 BSCR Structure according to Standard Formula by EU and EEA Member States**



Source: EIOPA, Insurance Overview Report 2023.

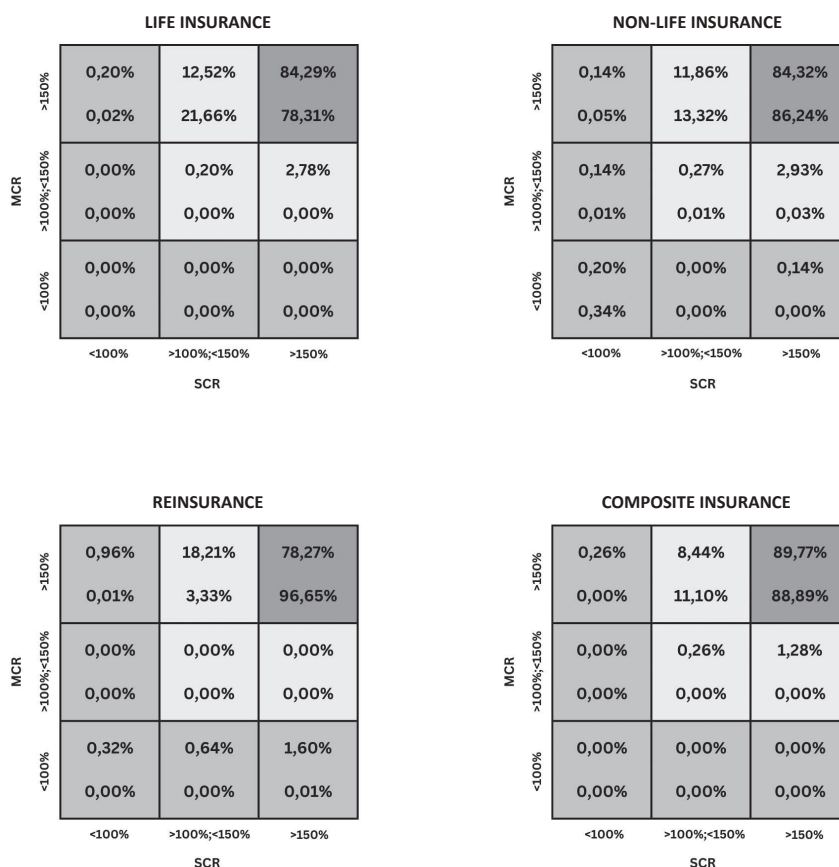
<sup>28</sup> Branko Pavlović, „Koji je rizik najveći za osiguravače?“, *Svet osiguranja*, 2019.



Across EU member states, there is a group of countries where market risk represents over 70% of the total required solvency capital. These are primarily non-eurozone countries, such as Sweden, where market risk participation reaches 87%. Finland (79%) and Denmark (73%) follow closely. France (73%), Croatia (72%), and Austria (71%) also exhibit high levels of market risk participation.

The diversification effect is particularly pronounced in Slovakia, where risk correlation reduces the required solvency capital by 56%. Hungary (-46%) and the Czech Republic (-42%) also experience a significant impact from diversification.

**Figure 7 EU Market Structure according to Achieved SCR and MCR Ratio Indicator**



Source: EIOPA, Insurance Overview Report 2021

Figure 7, using 2020 data, clearly shows that the vast majority of entities in the single EU market have high SCR and MCR levels. These are represented by the green fields, where both ratios are above 150%. If the top ratio represents the percentage measured by the number of entities, and the bottom ratio represents the percentage measured by assets, then a very high number of entities achieve solvency ratios between 78.27% and 89.77%, depending on the line of business they operate in. Entities falling within the yellow fields also meet the regulatory solvency requirements. However, a small number of entities (represented by the grey fields) face challenges in complying with solvency regulations. For these entities, at least one of the two solvency ratios falls below 100%. Their share ranges from 0.22% to 3.54%, depending on the types of insurance activities they are licensed for.

The EU insurance market faces a reform of the Solvency II Directive.<sup>29</sup> Even during the Directive's introduction, the plan was to revisit and revise specific segments after five years of observing its implementation effects.<sup>30</sup> This process was delayed and slowed down by the global pandemic, but the reformed provisions are expected to come into effect in 2025. Climate change, the green agenda, lessons learned from the recent pandemic, and the regulator's intention to incentivize long-term investments will heavily influence the shape of the future regulatory framework.<sup>31</sup> A particular challenge will be reconciling the reform's needs and goals, formulated under low-interest-rate conditions, with potentially significantly higher interest rates at the time of their adoption and implementation.<sup>32</sup>

Informed by past experiences where the insurance sector demonstrated exceptional resilience during systemic crises, European regulatory and legislative bodies are poised to pursue capital relief measures in the foreseeable future. One of the planned reform areas under consideration involves a reduction in the capital charge utilized for calculating the risk margin, decreasing it from 6% to 4.5%. According to forecasts, this adjustment would translate to a decrease in the risk margin by 30% to 40% for certain entities, thereby releasing over €50 billion in capital for other projects and objectives. This figure signifies a substantial easing, particularly considering that the total risk margin across the EU market stands at approximately €140 billion.<sup>33</sup>

The reforms also aim to provide preferential treatment to long-term capital investments intended to cover long-term liabilities. These dedicated funds, clearly earmarked for this purpose and not intended for sale, will only be subject to a 22% capital charge. This adjustment is anticipated to unlock over €10 billion in capital at the EU level.

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<sup>29</sup> Insurance Europe, „Solvency II Review and Insurance Recovery & Resolution Directive“, 2022, pp. 1–8.

<sup>30</sup> EIOPA, „Opinion on the 2020 review of Solvency II“, 2020, pp. 14–99.

<sup>31</sup> N. Petrović Tomić, „Usklađenost poslovanja sa ESG standardima – osnove održivog poslovanja“, u V. Radović (ured.), *Usklađivanje poslovnog prava Srbije sa pravom EU*, Pravni fakultet u Beogradu, Beograd 2023, pp. 69–95.

<sup>32</sup> G. Bernardino, „Keynote speech: 2020 Solvency II review: Opportunities and Challenges“, EIOPA, 2020.

<sup>33</sup> Insurance Europe, „Solvency II Review key messages ahead of trilogues“, September 2023.

A significant portion of the reform effort will be directed towards refining the construction of the yield curve, particularly for maturities exceeding 20 years. In practice, the risk-free interest rate derived through extrapolation under Solvency II has consistently been notably higher than prevailing market rates, particularly in the low-interest-rate environment present at the outset of the reform. The expectation is that this adjustment will exert upward pressure on entities' technical provisions.<sup>34</sup>

Another planned change concerns the volatility adjustment mechanism, with the aim of enhancing its efficiency. This would entail raising the percentage of the risk-adjusted spread from the current 65% to 85%. Such an adjustment would incentivize entities to pursue additional capital requirement benefits through both active and passive management. It would enable entities with robust Asset and Liability Management (ALM) practices to further elevate their discount rates, consequently reducing liabilities.

The ORSA report is also set to undergo changes, with a high likelihood of integrating climate change scenario testing, specifically focusing on the impact of increasing average temperatures. The plan involves analyzing two scenarios: the first involving a global temperature increase below 2 degrees Celsius, and the second assuming a significantly higher rise in average temperatures.

There is a prevailing sentiment that the EU insurance market is presently over-capitalized. While there remains a need for further enhancements in capital allocation among market participants, there appears to be leeway for releasing some capital. Estimates indicate a surplus of nearly €100 billion, which could be channeled towards financing the EU's post-pandemic economic recovery, bolstering the capital market, and supporting "green" projects.

### **III. Implementation of Solvency II in the Serbian Insurance Market**

The legal framework governing insurance activities in the Republic of Serbia, with the Insurance Law as its foundation,<sup>35</sup> is a hybrid system. It incorporates and implements most of the Solvency I framework but also introduces some requirements from the Solvency II Directive, primarily in the qualitative requirements segment. Due to this mix of regulations from two generations of solvency laws, the term "Solvency 1.5 regime" is often used colloquially to describe the current system in Serbia.

The required solvency margin, or capital adequacy, is currently calculated according to Solvency I provisions.<sup>36</sup> However, a number of qualitative requirements

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<sup>34</sup> Milliman, "EIOPA Consultation Paper on the Opinion on the 2020 review of Solvency II: Standard Formula Solvency Capital Requirement", 2019, pp. 17–19. Available at: [https://assets.milliman.com/ektron/Solvency\\_II\\_2020\\_Review\\_SCR\\_Standard\\_Formula.pdf](https://assets.milliman.com/ektron/Solvency_II_2020_Review_SCR_Standard_Formula.pdf). Visited on: 10/04/ 2024.

<sup>35</sup> *Official Gazette RS*, nos. 139/2014 and 44/2021.

<sup>36</sup> National Bank of Serbia, Decision on Capital Adequacy of Insurance/Reinsurance Undertakings, *Official Gazette No. 51/2015*.

from the new European directive have been implemented, particularly those concerning: conditions for establishing a company, key management functions,<sup>37</sup> content of the authorized actuary's opinion, eligibility criteria for managing board members, pre-contractual information, outsourcing and to some extent, the ORSA report.<sup>38</sup> In these areas adopted from Solvency II, domestic entities in Serbia almost meet the standards that apply to insurance companies in the single EU market. In addition to qualitative requirements, a small portion of the current EU directive's quantitative requirements have also been introduced into domestic regulations. These include data quality, segmentation, the obligation to conduct back-testing, and the adequacy of technical provision calculations. There is a mandatory requirement for full adoption and harmonization with the Solvency II Directive by the time Serbia joins the EU.<sup>39</sup>

The National Bank of Serbia, the regulatory body, has designed and guided the process of introducing the Solvency II Directive in the domestic market. The core principles and implementation phases for this Directive are outlined in the document Strategy for Implementation of Solvency II in the Republic of Serbia.<sup>40</sup> This Strategy was last updated in May 2021. The update of the Strategy was primarily driven by the COVID-19 pandemic and the resulting difficulties in carrying out the planned phases of implementing the European directive during a global crisis. The pandemic also led to an extension of the planned revision of the Directive within the EU itself.

The Strategy for Implementation of Solvency II in the Republic of Serbia outlines a phased approach for implementing the new directive, consisting of a preparatory phase and three additional stages.<sup>41</sup> Preparatory Phase (completed 2014-2015): This phase involved implementing specific Solvency II provisions into domestic legislation. It was completed in 2014 and 2015 with the adoption of the Insurance Law and subordinate legal acts based on that Law. Compliance Phase (completed 2017): The following stage, the compliance phase, was carried out in 2017 and involved analyzing the compatibility between domestic and European legal frameworks. Particular attention was paid to the application of Article 4 of the Directive, which specifies the exclusion of the smallest insurance/reinsurance companies from the Directive's application. This analysis concluded that all domestic companies would be obliged to implement the Directive. Impact Assessment Phase

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<sup>37</sup> National Bank of Serbia, Decision on the System of Governance in an Insurance/Reinsurance Undertaking Official Gazette No. 51/2015, 29/2018, 84/2020 and 94/2022.

<sup>38</sup> Lj. Stojković, „Pravni aspekti sistema upravljanja u društvu za osiguranje i princip srazmernosti prema Direktivi o solventnosti II“, In: Proportionality and Legal Certainty in Insurance Law. Palić: The Insurance Law Association of Serbia, 2017, pp. 279-293

<sup>39</sup> Iva Tošić, „Uticaj direktive Solventnost II na sektor osiguranja u Evropi“, Yearbook of the Faculty of Law, Banja Luka, 2017, pp. 306–309.

<sup>40</sup> Zorica Šipovac, „Solventnost II u Republici Srbiji – Realno stanje u teoriji i praksi“, SORS Proceedings, 2017, pp. 235-249.

<sup>41</sup> N. Petrović Tomić, *Osnove prava osiguranja*, second, revised addition, Faculty of Law of the University of Belgrade 2023, pp. 53-54.

(ongoing): The impact assessment phase began with the implementation of Quantitative Impact Studies (QIS). These studies tested the effects of applying Solvency II requirements on technical provisions and capital adequacy. The purpose of these studies is to assess the overall preparedness of the market and individual companies to implement the Directive's requirements. Additionally, they aim to identify potential systemic risks, provide guidance to companies on how to manage their risk exposures, and understand the consequences of implementing the Directive. As of early 2024, three QIS studies have been conducted, with plans for ongoing implementation until the full application of the Directive's requirements. The final stage involves aligning the regulatory framework. This phase will be implemented based on the analyses and results of the QIS studies. The timeframe for this phase will be largely determined by the progress and dynamics of Serbia's accession negotiations with the European Union. This stage will encompass adapting the regulatory framework through the Insurance Law, which will transpose provisions of the Solvency II Directive, and potentially the Law on Bankruptcy and Liquidation of Banks and Insurance Companies. Project implementation and the completion of this phase of the Strategy will be achieved by fully aligning the domestic legal framework with the Solvency II Directive, following the manner and deadlines defined by the National Program for Adoption of the Acquis of the European Union.<sup>42</sup>

Several entities are expected to be involved in the implementation process of the Directive, alongside the National Bank of Serbia and insurance/reinsurance companies. These include the Ministry of Finance of the Republic of Serbia, the Deposit Insurance Agency, the Association of Serbian Insurers, etc. A facilitating factor in adopting the achievements of contemporary European regulations is the fact that most domestic entities have parent companies in EU countries. Due to group supervision regulations and internal analysis needs, these entities are already obligated to perform calculations and report to their parent companies under the Solvency II framework. In addition to gaining practical experience with the Directive's requirements and understanding the application effects, foreign-owned domestic companies benefit from knowledge transfer, which will greatly simplify the process of introducing the Directive in our market.

According to data for the end of 2022, the available solvency margin for the entire market, based on the requirements of the current regulations corresponding to the Solvency I framework, is 49.7 billion RSD, while the required margin is 23.7 billion RSD. This translates to a solvency ratio for the market (available solvency margin divided by required solvency margin) of 209.70%. The solvency ratios for companies primarily engaged in non-life insurance, life insurance, and reinsurance are 206.4%, 210.6%, and 231.1%, respectively.<sup>43</sup>

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<sup>42</sup> National Bank of Serbia, Strategy of Implementation of Solvency II in the Republic of Serbia, May 2021.

<sup>43</sup> National Bank of Serbia, Insurance Sector in the Republic of Serbia. Report for 2022

We conclude that the insurance market in Serbia is presently highly capitalized. Considering the experiences of countries in the region and the unofficial results of QIS studies in Serbia, we anticipate a decrease in solvency ratios upon full adoption of the Solvency II Directive. However, this indicator is expected to remain stable for the overall market and most entities, ensuring a high level of protection for policyholders' rights.

The QIS studies have identified systemic challenges that the domestic insurance sector needs to address in the coming period. They also highlight desirable directions for individual companies' business profiles to ensure adequate risk and capital management. A significant change in the balance sheet structure is foreseen for calculating solvency capital. This will likely lead to a decrease in technical provisions and an increase in capital, accompanied by a parallel rise in the required solvency capital. Initial calculations also draw attention to the high participation of the counterparty risk module. This module does not play a significant role in the risk profile of the EU market, where market risk tends to dominate. A common characteristic is that the insurance risk module absorbs less than half of the capital requirement. This underscores the comprehensiveness, significance, and advantage of transitioning to the new concept of risk identification and measurement.

In addition to adopting the Solvency II Directive, which is currently undergoing reform even within the EU, a particular challenge for domestic companies will be operating under the freedom to provide services. This allows subsidiaries of companies from other member states to be established in any member country of the single market, further complicating the position of domestic entities. The adoption of IFRS 17 and other achievements of contemporary European regulations will occur alongside these processes.

## **IV. Challenges of Implementing Solvency II**

Based on the experiences of European countries during the Solvency II Directive adoption process, particularly neighboring countries and those with a similar level of economic development, along with the specificities of Serbia and its domestic insurance market, and the results of the initial quantitative impact studies, a number of systemic challenges have been identified. These challenges need to be addressed or adapted during the harmonization process.

### **1. Segmentation into Lines of Business and Identifying Contract Boundaries**

The first step in calculations under the new framework is business segmentation. However, unlike the current regulations which prescribe portfolio segmentation based on insurance types and tariffs, Solvency II Directive calculations

require dividing the portfolio into pre-defined lines of business. *The challenge for domestic companies lies in the fact that this is not a direct mapping of insurance types onto lines of business; it is a different perspective.* The division into lines of business reflects to a significant degree the nature and specificities of the insurance market in Western countries, where life and personal insurance lines are highly prominent. This, in addition to the inherent difficulties and dilemmas caused by the different portfolio segmentation approaches in the current and new frameworks, presents technical problems for entities. They need to find a way to identify individual tariffs or tariff groups within their databases and extract them according to Solvency II specifications. This is particularly complex due to dealing with historically long data series recorded under the previous framework. Another issue is that some product features crucial for segmentation are recorded and identified through loadings, discounts, or other adjustment factors at the tariff group level. Even at the lowest level of recording, identifying them becomes complicated.<sup>44</sup> Beyond portfolio segmentation, determining contract boundaries also poses a challenge. The Solvency II Directive provides clear definitions for contract boundaries. However, previous regulations treated contract duration differently. Consequently, there is a question of how accurately companies can identify actual contract boundaries when it comes to historical data necessary for calculations. This is especially pertinent considering the existence of specific contracts in practice where boundaries are essentially prolonged but are still systematically recorded as standard contracts. Domestic insurance companies are expected to modify their products and business recording systems in the coming period to enable portfolio segmentation according to the rules prescribed by the forthcoming legal framework and to support more accurate identification of contract boundaries.

## **2. Changed Balance Sheet Structure for Solvency Capital Requirement Calculations**

When calculating solvency requirements under the new regulatory framework, significant changes to the balance sheet structure will occur, impacting both assets and liabilities, notably capital. It is crucial to emphasize that this balance sheet is exclusively for solvency ratio calculations, while regulatory requirements and existing financial reporting valuation and recording principles remain in force. This differentiation might cause confusion and potentially influence the risk appetite and business decisions of stakeholders involved with insurance/reinsurance

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<sup>44</sup> Challenges identified so far that impact the calculation and meaning of the calculation include: segmentation of accident insurance and voluntary health insurance, in terms of separating insurance pertaining to work-related injuries and employee treatment, joint consideration of insurance line 08 (Property Insurance against Fire and Allied Perils) with the heterogeneous line 09 (Other Property Insurance), treatment of annuity claims, which mainly stem from automobile liability, as part of life insurance, etc.

undertakings. The process of discounting, abstracting outstanding premiums, and acquisition costs can substantially reduce technical reserves under Solvency II compared to current practices. This may lead some stakeholders to assume that the current financial reporting process overstates liabilities or underestimates realized profit, possibly triggering capital flight. However, it's essential to view this solely as a method for determining available solvency capital, crucial for meeting the significantly heightened solvency capital requirements. A market-consistent valuation of assets and liabilities will also pose a challenge, particularly in limited and shallow markets. The new framework requires valuation based on fair market value, abandoning the concept of historical cost, depreciated value, or similar methods. To effectively manage risk, establishing term and currency matching between assets and liabilities will grow increasingly important.<sup>45</sup> The success of this matching will be precisely quantified, replacing the previous qualitative target. Finally, there will be a portfolio shift away from products with guarantees and towards products where client entitlements fluctuate based on market indicators. This will require a distinct group of professionals who are simultaneously knowledgeable about the Directive, risk management principles, portfolio characteristics, the impact of risk correlation, and who can analyze both sides of the balance sheet concurrently. These individuals, or entire organizational units performing this function, will need to be integrated into almost all business processes of insurance companies. Developing and retaining such talent, along with sophisticated IT solutions, will be crucial for making risk management more up-to-date and efficient.

### **3. High Costs of Implementing and Maintaining Systems and Business Processes**

The experiences of countries that have already adopted the Solvency II Directive highlight the significant costs associated with implementing and maintaining the systems, business processes, and personnel needed to comply with the revised regulations. Insurance entities will almost certainly face the need to implement modern risk management and actuarial calculation software due to the significantly more complex calculations and extensive reporting requirements, even if they haven't already done so. This demand for a new breed of professionals arises from the need to understand complex risk management processes and the impact of various business segments on both sides of the balance sheet. These individuals will require expertise in risk management principles, actuarial science, and the ability to make informed decisions on portfolio composition, product development, investment strategy, and

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<sup>45</sup> Grundl, H., Dong, M. I., & Gal, J., „The evolution of insurer portfolio investment strategies for long-term investing“, OECD Journal: Financial Market Trends, 2016, pp. 22–27.



other key areas.<sup>46</sup> Retaining these skilled professionals will be a challenge due to competition within the insurance sector, as well as the growing demand from the IT sector. The IT industry needs such personnel to develop sophisticated solutions for calculations, record-keeping, tracking, and analysis according to modern European standards. This increased competition is likely to drive up personnel costs, which may be partially passed on to policyholders through higher premiums. While the new regulatory framework enhances customer security and improves the overall quality of insurance products, it may come at a cost to affordability for some customers.

When considering future regulatory changes, and keeping in mind that we already have high levels of security, competent legislative bodies should use cost-benefit analysis to assess the justification for a marginal increase in security at the expense of marginal cost. The principle of proportionality, on which the Directive is based, dictates that the implemented measures should correspond to the nature of the risk. This means that relatively smaller entities are expected to require a significantly lower resource expenditure in this process. However, it is not uncommon for smaller companies to be unable to afford the high costs of harmonization and ultimately be forced to liquidate. The application of internal models for calculating solvency capital requirements, which should better reflect a company's risk profile and typically results in a lower capital requirement, is a privilege reserved only for large and well-resourced entities. This is due to the complexity of building and validating such calculation models.<sup>47</sup>

#### **4. Changes in Insurance Company Portfolio Structure**

Companies primarily engaged in life insurance have a strong incentive to manage their insurance portfolio structure to reduce capital requirements. The framework provides capital benefits for entities whose business is based on products that do not include high guaranteed benefits for policyholders. Traditional life insurance products with a savings component are more penalized from a risk perspective, particularly market risk compared to product risk and modern unit-linked products. Since unit-linked products have little to no guarantees, and the product value directly depends on the value of the investment unit, almost all the risk is transferred to the

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<sup>46</sup> „Allianz“, „Izvešće o solventnosti i finansijskom stanju za 'Allianz Hrvatska' d.d. za poslovnu godinu 2022.“, 2023, pp. 17–45.

<sup>47</sup> Additional pressure comes from companies from other EU member states that establish subsidiaries in new member countries under the “freedom to provide services” principle, thus intensifying competition. This is confirmed by the experience of Croatia, where several smaller companies were liquidated or merged after the introduction of Solvency II, precisely due to the high costs and the inability to withstand the competitive pressure. An analogous process can be expected in our market after the adoption of the Directive and other EU legislation.

policyholder. This relaxes the obligations and capital requirements for the insurance company. This benefit has been recognized and heavily utilized by insurers in the EU, where sales of traditional products have nearly stopped or are offered with very low guaranteed technical interest rates. The extent to which this process will follow in our domestic insurance market also depends on the ability to deepen and activate the life insurance market, where individual sales have significantly decreased. On the other hand, group risk products sold through commercial banks are experiencing expansion. The success of insurers in terms of capital requirements will also depend on their ability to achieve the right balance between risk-component products and savings-component products, in order to level out and negate the impact of mortality stress and longevity stress. Finally, a trend towards shorter contracts is expected, as a longer time horizon increases the potential negative impact on net equity due to stresses, and consequently, on the capital requirement.<sup>48</sup>

## **5. Sensitivity of Calculations to Risk-Free Interest Rate Fluctuations**

Depending on the movement of risk-free interest rates, entities may experience year-to-year instability in the calculated solvency ratios. This problem can be particularly pronounced in the case of falling interest rates, which lead to an increase in the value of liabilities, assets, and also the risk margin (as part of the technical provisions).<sup>49</sup> In macroeconomic conditions with declining yields, the cost of capital rate used in the risk margin calculation (currently at 6%) can be particularly burdensome for insurance companies. This rate is quite high considering market interest rates and cannot be mitigated by the discounting effect of risk-free interest rates. This is precisely why the current cost of capital rate is subject to reform within the Directive's provisions. In addition to achieving maturity matching between assets and liabilities, one potential solution to mitigate the volatility of solvency ratios is the introduction of a fluctuating cost of capital rate, depending on the value and movement of risk-free yields. Otherwise, there is a risk that some entities that meet solvency requirements in one year could fall below regulatory thresholds due to short-term financial market disruptions and come under regulatory measures. This could trigger a cyclical effect of lost public and investor confidence, leading to capital flight. It can be concluded that the new regulatory framework is more suited for a macroeconomic environment with higher and stable interest rates,<sup>50</sup> which ensures

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<sup>48</sup> A. Clapis, M. Fruzzetti, A. Mapelli, „Effectiveness of capital light traditional products, and how they might evolve with the arrival of IFRS 17“, 2024, pp. 1–10.

<sup>49</sup> Jelena Kočović, Marija Koprivica, Blagoje Paunović, „Initial effects of Solvency II implementation in the European Union“, 2017.

<sup>50</sup> F. Škunca, „Analiza ulaganja osiguratelja u Solvency II svijetu“, *Hrvatski časopis za osiguranje*, br. 1, 2019, pp. 55-69.

a higher level and continuity of achieved solvency levels. A particular challenge for our market will be the construction of the yield curve for the Serbian Dinar, given the limited depth and liquidity of the financial market. Since the maturities of government bonds have significant gaps (missing maturities for specific years), this will require substantial interpolation or extrapolation to construct the yield curve. This increases the risk of deviations from objective values, as well as significant changes in rates from year to year.<sup>51</sup>

## **6. Impact of Reinsurance Mechanisms on Solvency Capital Requirements**

Under the Solvency II framework, reinsurance agreements have a significant and multifaceted impact on the solvency calculation. This influence is primarily felt in two modules: Insurance Risk Module where the reinsurance effect reduces risk and Credit Risk Module where the reinsurer, as the other contracting party, carries its own probability of default, thereby contributing to an increase in risk and the total solvency capital requirement. The net impact of these opposing influences on the calculation depends on the type of reinsurance program and the creditworthiness of the reinsurer. Experience from the EU market shows that the positive effect of the reinsurance mechanism is achieved with reinsurers that have at least an A credit rating. The results of the QIS 5 study in the EU market revealed that replacing a reinsurer with an A credit rating with a reinsurer with a BB credit rating increases the probability of bankruptcy by as much as 23 times. In the case of a replacement with a BBB credit rating reinsurer, the probability would rise by 380%.<sup>52</sup> The first quantitative impact studies conducted in our country revealed a significantly higher contribution from the credit risk module in the total risk compared to the EU market. One reason for this significant credit risk module contribution is the specific nature of domestic reinsurance regulations, the number, and creditworthiness of domestic reinsurance companies, and the regulator's intention to assess the potential credit risk problem through prohibiting the "look-through" approach. This approach disregards the creditworthiness of the foreign reinsurer, who is essentially the bearer of the transferred risk. The Serbian Law on Insurance stipulates that reinsurance, except in exceptional cases, must be conducted through a domestic reinsurance company. In practice, due to the limited risk-bearing capacity of domestic reinsurers, which is even lower than the capacity of cedants, the domestic reinsurer typically retains only a small portion of the risk. The dominant risk is then ceded abroad to one or more foreign reinsurers. If the current reinsurance regulations remain in place when the Solvency II Directive

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<sup>51</sup> Jelena Kočović, Marija Koprivica, „Izvođenje krive prinosa za vrednovanje obaveza iz osiguranja u regulatornom okviru Solventnost II“, 2019, pp. 19–21.

<sup>52</sup> SCOR, „Life (re)insurance under Solvency II“, April 2012.

is implemented, it could lead to a significantly higher contribution from credit risk to the overall risk profile compared to EU market standards. This is because it will be difficult, even in the long term, to find a domestic reinsurer with an A credit rating or higher in our market, which is necessary for a positive net impact of the reinsurance mechanism. Some potential solutions include liberalizing the reinsurance regulations and allowing for direct reinsurance abroad, permitting consideration of the creditworthiness of foreign reinsurers, or reinsurance through subsidiaries of foreign companies established in Serbia. Undoubtedly, this is currently a systemic challenge whose solution will depend on the strategic development direction chosen by the regulator. Individual companies will focus on optimizing their reinsurance contract portfolios by choosing an appropriate combination of contracts that align with their risk appetite and ensure an optimal impact on solvency ratios.

### **7. Treatment of Euro-Denominated Government Bonds or Bonds with Currency Clause**

In an effort to achieve currency matching between assets and liabilities, insurers invest a significant portion of their funds in Euro-denominated government bonds or bonds with a Euro-linked currency clause. This is particularly characteristic of companies outside the Eurozone, especially in the Balkans, where populations are accustomed to and prefer pegging their rights to a foreign currency value. However, this practice raises questions about the applicability of certain Solvency II provisions in these countries. The strict capital requirements under the framework could put companies in this region at a disadvantage. According to the original intent of the new solvency regulation, Euro-denominated or Euro-linked government bonds receive less favorable treatment compared to government bonds in the domestic currency. They are treated similarly to corporate bonds, where the credit rating is considered. For government bonds, this implies using the country's credit rating, which can be problematic for countries with low credit ratings, like Serbia with its current BB+ rating. For example, in the case of Croatia, which previously held a BB rating, for every 100 currency units invested in Euro-denominated or Euro-linked government bonds, an additional 73 units of capital had to be set aside. This represents an exceptionally high capital requirement. To mitigate the impact of these measures on capital requirements, Croatia negotiated with the EU for a transitional period from 2015 to 2019, gradually increasing the application of this capital requirement from 0% to 100% in 2019.<sup>53</sup> Since the purpose of investing in Euro-linked bonds is to achieve currency matching with liabilities, not speculation, there is a strong justification for preferential treatment of this form of investment. A significant portion of domestic insurance companies' investment assets are held in government bonds,

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<sup>53</sup> T. Račić Žlibar, „Solvencnost II je i sklizak pod“, *Svijet osiguranja*, no. 7, 2015.

according to recent data: 57.4% of technical provisions for non-life insurance and a staggering 89.5% of technical provisions for life insurance.<sup>54</sup> A substantial portion of these bonds are Euro-linked. Therefore, it is crucial to determine how the Solvency II Directive provisions will be applied in Serbia. Through negotiations, it is important to secure a transitional period similar to Croatia's harmonization path, specifically for the regulations governing the treatment of foreign currency-linked government bonds.

## **V. Conclusion**

The recognition that insurance companies, as financial institutions engaged in underwriting, are not solely exposed to insurance risk, but also significantly impacted by market risks, credit risks, and operational risks, has led to the implementation of the Solvency II Directive in the EU market since January 1, 2016. This directive introduces new regulations for calculating the solvency of insurance and reinsurance companies, replacing the previous framework known as Solvency I, which had been developed since the 1970s and comprised a total of 14 directives. Beyond offering a more holistic view of overall risk, the new regulatory framework emphasizes individualization at the entity level, linking it to specific parameters that characterize its operations. This approach incentivizes risk management practices aimed at reducing the overall risk profile and consequently the capital requirement. Specifically, instead of solely considering premiums and damages, or mathematical reserves in life insurance, as measures of risk, the new framework evaluates a plethora of factors. These include business segmentation, contract term, maturity of insurance premiums, sums insured, investment structure, credit standing of creditors, impact of stress tests on outcomes, internal statistics, and experiential realization of parameters crucial for calculation, among others. Consequently, under this new framework, two insurance companies with nearly identical volumes of business, measured by insurance premiums, can exhibit significantly different levels of solvency based on the efficacy of their risk management practices. This discrepancy arises from their adept utilization of elements prioritized by the new framework, notably the impact of diversification. The overarching objective of this new regulation is to enhance the protection of insurance beneficiaries in the broadest sense.

The transition of companies in the EU to Solvency II entails considerable implementation and maintenance costs. The new regulation introduces significantly more complex calculations and imposes stringent requirements on both the quantity and quality of reporting. This necessitates substantial investments in IT systems, the development of new business processes, and the recruitment and retention of skilled personnel. Despite the application of the principle of proportionality, which

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<sup>54</sup> National Bank of Serbia, „Framework for Implementation of the Third Quantitative Impact Study of Solvency 2 on Insurance Sector in the Republic of Serbia“, 2023.

dictates that the extent of efforts to implement legal provisions should align with the volume and nature of the risk, along with the obligation to meet minimum standards, there has been a restructuring of the market. This has manifested in mergers and acquisitions of smaller entities by financially stronger counterparts. The solvency ratio has been maintained at a high level even after the transition to the new regulation, with the vast majority of entities recording solvency ratios above 150%, of which a significant number are above 200%. The highest levels of solvency ratios are recorded by the companies in Germany, where a median ratio of 299% was recorded, while this indicator is the lowest in Iceland, where it is at the level of 157%. The countries of the former Yugoslavia, now EU members, Slovenia and Croatia, achieved median ratios of 229% and 170%, respectively. How much the transition from Solvency I to Solvency II has significantly changed the way of measuring risks, by expanding the scope of observation from insurance risk only to other risk modules, is evidenced by the fact that according to the results for all EU Member States, market risk, which was not even measured according to the previous regulation, is individually the most dominant item, the risk module, in the total required solvency capital with a share of 56% with non-life insurance companies, up to over 70% in composite companies, i.e. reinsurance companies. The future of the EU insurance market entails a reform of the Solvency II Directive. Originally, the plan included revising certain segments after five years of its introduction, taking into account the effects of its implementation. However, this process has been delayed and slowed down due to the global pandemic. Nevertheless, reformed provisions are anticipated to come into effect in 2025. The reform will prioritize various aspects, including reducing the cost of capital for calculating the risk margin, constructing a yield curve, providing preferential treatment for long-term capital investments covering long-term liabilities, adjusting for volatility, and examining the impact of climate change through the Own Risk and Solvency Assessment (ORSA) report.

The legal framework governing insurance activity in the Republic of Serbia, based on the Insurance Law, represents a hybrid system. It incorporates most provisions of the Solvency I framework, but also introduces elements of the Solvency II Directive, particularly in qualitative requirements. Consequently, colloquially, it is often referred to as Solvency 1.5. The process of implementing Solvency II in Serbia is guided by the Solvency II Implementation Strategy in the Republic of Serbia, adopted by the National Bank of Serbia, aligning with the country's EU accession timeline. The Serbian insurance market has successfully navigated the anticipated phases of implementation. However, quantitative impact studies are ongoing to pinpoint the scope and nature of requirements under the new regulation, as well as the challenges associated with harmonization. This will enable both the regulator and insurance/reinsurance companies to adapt in a timely manner. The final phase of the Strategy involves harmonizing laws. Drawing from the experiences of countries that

have undergone similar harmonization processes, it is crucial to negotiate a gradual, phased implementation of certain provisions of the new regulatory framework.

The solvency ratio in the Serbian insurance market, measured by the ratio of available and required solvency margin according to the latest data calculated under Solvency I, stands at 209.70%. This reflects a highly capitalized sector. However, initial quantitative studies indicate a potential decline in this ratio under the new legislative standard for solvency calculation, albeit remaining at a satisfactory level on average. To effectively prepare the domestic insurance sector for the full adoption of the EU acquis, which encompasses regulations beyond the Solvency II Directive such as IDD, GDPR, IFRS, and the freedom to provide services across all member states, countries, regulators, and insurance companies must collaborate closely. This collaboration is crucial not only to meet minimum requirements but also to enhance entities to a level where they can withstand heightened competitive pressures. Achieving this goal necessitates addressing several systemic challenges. These include resolving issues related to the treatment of government bonds denominated in euros or with a currency clause, optimizing the reinsurance mechanism, adapting operations to enable segmentation in lines of business according to the new regulation, and clearly defining contract boundaries. Additionally, restructuring the portfolio to increase the share of products with preferential treatment and maximizing the effect of diversification is essential along with other necessary processes.

The Solvency II Directive offers clear guidelines for implementation, and Serbia benefits from a significant advantage compared to other countries at a similar stage of development: an extended timeframe for adoption. This prolonged period presents an opportunity to effectively learn from the experiences of other countries. The future success of Serbia's insurance market depends on its capacity to adapt to the new regulations and surmount these systemic challenges in the years ahead.

### ***Literature***

- Allianz, „Izveštje o solventnosti i finansijskom stanju za Allianz Hrvatska d.d. za poslovnu godinu 2022.“, 2023, pp. 17–45.
- Bernardino, G., „Keynote speech: 2020 Solvency II review: Opportunities and Challenges“, EIOPA, 2020.
- Borseli, A., „Nadzor sistema uprave u osiguravajućim grupama prema Solventnosti II“, *Modern Insurance Law: Current Trends and Issues*, Palić, 2014, 28–43.
- Clapis, A., Fruzzetti, M., Mapelli, A., „Effectiveness of capital light traditional products, and how they might evolve with the arrival of IFRS 17“, 2024, pp. 1–10.

- Čolović, V., „Primena projekta Solventnost II i mere koje su predviđene u Zakonu o osiguranju Srbije u slučaju neprimene pravila o upravljanju rizikom“, Zlatibor, 2013, pp. 28–43
- Čolović, V., *Osiguravajuća društva, Zakonodavstvo Srbije, pravo EU, uporedno pravo*, Institute of Comparative Law, Belgrade, 2010
- Čolović, V., „Uticaj primene projekta Solventnost II na osiguravajuća društva u Srbiji“, *Zbornik radova Harmonizacija zakonodavstva Republike Srbije sa pravom Evropske unije (II)*, Institute of International Politics and Economics. Institute of Comparative Law, Hanns Seidel Foundation, Belgrade 2012., 368–369
- Dreher, M., *Treaties on Solvency II*, Springer Verlag, Berlin, 2015
- EIOPA, „European Insurance Overview 2020“, pp. 1–32.
- EIOPA, „Opinion on the 2020 review of Solvency II“, 2020, 14–99.
- EU, „Directive 2009/138/EC of the European Parliament and of the Council on taking-up and pursuit of the business of Insurance and Reinsurance: Solvency II“, 2009.
- Ilić, M., *Uticaj primene Direktive Evropske unije Solventnost II na sektor osiguranja u Srbiji*, doctoral dissertation, Niš, 2014
- Gatzert, N., Martin, M., „Quantifying Credit and Market Risk under Solvency II: Standard Approach versus Internal Model“, 2012, pp. 5–21.
- Grundl, H., Dong, M. I., & Gal, J., „The evolution of insurer portfolio investment strategies for long-term investing“, *OECD Journal: Financial Market Trends*, 2016, pp. 1–55.
- HANFA, „Makroprudencijalni skener rizik“, 2020.
- Insurance Europe, „Solvency II Review and Insurance Recovery & Resolution Directive“, 2022, pp. 1–8.
- Jauković, L., Kaščeljan, V., „Nova regulativa solventnosti osiguravajućih kompanija u EU – Projekta Solvenost II“, *Montenegrin Journal of Economics*, No. 5/2007, pp. 77–84
- Kočović, J., Koprivica, M., „Izvođenje krive prinosa za vrednovanje obaveza iz osiguranja u regulatornom okviru Solventnost II“, 2019, pp. 1–22.
- Kočović, J., Koprivica, M., Paunović, B., „Prvi efekti primene Solventnosti II u zemljama Evropske unije“, 2017, pp. 436–450.
- Kordanuli, B., „Značaj regulatornog okvira Solventnost II na poslovanje društava za osiguranje u Republici Srbiji“, 2017.
- Manning, K., Comerford, E., „Investment strategy under Solvency II“, Milliman research report, 2018.
- Marano P., „Nova nadzorna paradigma: kultura nošenja rizika i etički kodeks“, *Insurance Law, Governance and Transparency – Basics of the Legal Certainty*, Palić, 2105



- Marly, P. G., Ruol V., *Droit des entreprises d'assurance*, RB édition, Paris, 2011
- Milliman, „EIOPA Consultation Paper on the Opinion on the 2020 review of Solvency II: Standard Formula Solvency Capital Requirement“, 2019.
- National Bank of Serbia, „Decision on Capital Adequacy of Insurance / Reinsurance Undertakings“, *Official Gazette no. 51/2015*.
- National Bank of Serbia, „Decision on the System of Governance in an Insurance/Reinsurance Undertaking Official Gazette No“, *Official Gazette nos. 51/215, 29/2018, 84/2020 and 94/2022*.
- National Bank of Serbia, „Framework for Implementation of the Third Quantitative Impact Study of Solvency 2 on Insurance Sector in the Republic of Serbia“, 2023.
- National Bank of Serbia, „Solvency II Implementation Strategy in the Republic of Serbia“, 2021.
- National Bank of Serbia, „Insurance Law“, *Official Gazette*, nos. 139/2014 and 44/2021.
- Njegomir, V., „Solvency II direktiva i njen uticaj na upravljanje rizikom u osiguravajućim društvima“, *Finansije*, Ministry of Finance of the Republic of Serbia, 2009, pp. 183-202.
- Pavlović, B., „Koji je rizik najveći za osiguravače?“, *Svet osiguranja*, 2019.
- Petrović Tomić, N., *Pravo osiguranja, Sistem, Book I*, Official Gazette, Belgrade, 2019
- Petrović Tomić, N., „Usklađenost poslovanja sa ESG standardima – osnove održivog poslovanja“, u V. Radović (ured.), *Usklađivanje poslovnog prava Srbije sa pravom EU*, Faculty of Law in Belgrade, Beograd 2023, 69-95.
- Petrović Tomić, N., *Osnove prava osiguranja*, second, revised addition, Faculty of Law of the University of Belgrade, Beograd 2023
- Rae, R. A., Barrett, A., Brooks, D., Chotai, M. A., Pelkiewicz, J., Wang, C., „A review of Solvency II: Has it met its objectives?“, 2017, pp. 1–72.
- SCOR, „Life (re)insurance under Solvency II“, 2012.
- SCOR, „Reinsurance under Solvency II“, 2022, pp. 15–36.
- Stojković, Lj., „Pravni aspekti upravljanja rizikom i sistem internih kontrola kao integralni deo korporativnog upravljanja u društvu za osiguranje“, *European Insurance Law Review*, No. 3/2013, pp. 46-53
- Stojković, Lj., „Pravni aspekti sistema upravljanja u društvu za osiguranje i princip srazmernosti prema Direktivi o solventnosti II“, In: Proportionality and Legal Certainty in Insurance Law. Palić: The Insurance Law Association of Serbia, 2017, pp. 279-293
- Šipovac, Z., „Solventnost II u Republici Srbiji – Realno stanje u teoriji i praksi“, *SORS Proceedings*, 2017, pp. 235-249.

- Škunca, F., „Analiza ulaganja osiguratelja u Solvency II svijetu“, *Hrvatski časopis za osiguranje*, pp. 55-69.
- Tošić, I., „Izazovi implementacije Direktive Solventnost II u Srbiji“, *Law and Economy*, no. 7-9/2017, pp. 526-541.
- Tošić I., „Nadzor osiguranja – Direktiva Solventnost II“, *Foreign Legal Life*, no. 2/2017, 147-162.
- Tošić, I., „Uticaj direktive Solventnost II na sektor osiguranja u Evropi“, *Yearbook of the Faculty of Law*, Banja Luka, 2017, pp. 306-309.

*Translated by: Zorica Simović*